

L4 1 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.14

172.35

FILE 'CAPLUS' ENTERED AT 12:34:41 ON 15 APR 2006

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FILE COVERS 1907 - 15 Apr 2006 VOL 144 ISS 17

FILE LAST UPDATED: 14 Apr 2006 (20060414/ED)

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=> S L1 FULL

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 12:34:55 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 428 TO ITERATE

100.0% PROCESSED 428 ITERATIONS

1

ANSWERS

SEARCH TIME: 00.00.01

L5 1 SEA SSS FUL L1

L6 1 L5

=> D L6 IBIB ABS HITSTR 1

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:451393 CAPLUS

DOCUMENT NUMBER: 143:7830

TITLE: Preparation of chiral di- and triphosphites
and their

use in asymmetric catalysis

INVENTOR(S): Reetz, Manfred Theodor; Meiswinkel, Andreas;
Mehler,

Gerlinde

PATENT ASSIGNEE(S): Studiengesellschaft Kohle m.b.H., Germany

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

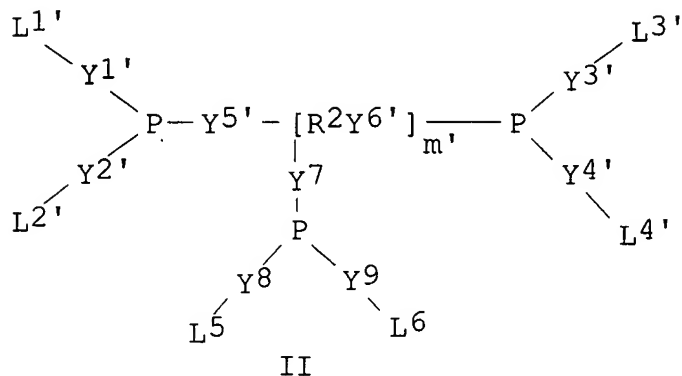
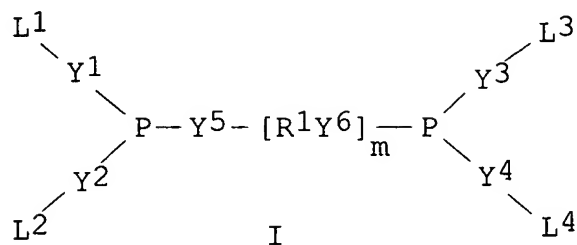
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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WO 2005047299	A2	20050526	WO 2004-DE2493
20041111			
WO 2005047299	A3	20050909	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,			
CA, CH,			
CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,			
GD, GE,			
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,			
LC, LK,			
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,			
NI, NO,			
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,			
SY, TJ,			
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,			
ZW			
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,			
ZW, AM,			
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,			
DE, DK,			
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL,			
PT, RO,			
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,			
ML, MR,			

NE, SN, TD, TG
 DE 10352757 A1 20050616 DE 2003-10352757
 20031112
 PRIORITY APPLN. INFO.: DE 2003-10352757 A
 20031112
 OTHER SOURCE(S): MARPAT 143:7830
 GI



AB The invention claims chiral di- and triphosphites I and II (L1, L2, L3, L4, L1', L2', L3', L4', L5, L6 = chiral organic group; Y1, Y2, Y3, Y4, Y5, Y6, Y1', Y2', Y3', Y4', Y5', Y6', Y7, Y8, Y9 = same or different O, S, organoamino, etc.; R1, R2 = halo, hydroxy, nitro, cyano etc. substituted C2-22 alkylene; m, m' = 1-1000), which are bridged by suitable groups.

The claimed compds. can be used in asym. transition metal catalysis and as chiral transition metal catalysts. Thus, reaction of (S)-2,2'-binaphthylphosphoric acid diester chloride with 1,3-propanediol in Et2O in the presence of Et3N gave 81.1% I (L1Y1 and L2Y2 = L3Y3 and L4Y4 = binol, Y5 = O, R1Y6 = CH2CH2CH2O, m = 1) which was used as cocatalyst with [Rh(cod)2]BF4 for enantioselective hydrogenation of di-Me itaconate.

IT 852457-78-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

USES (Uses)

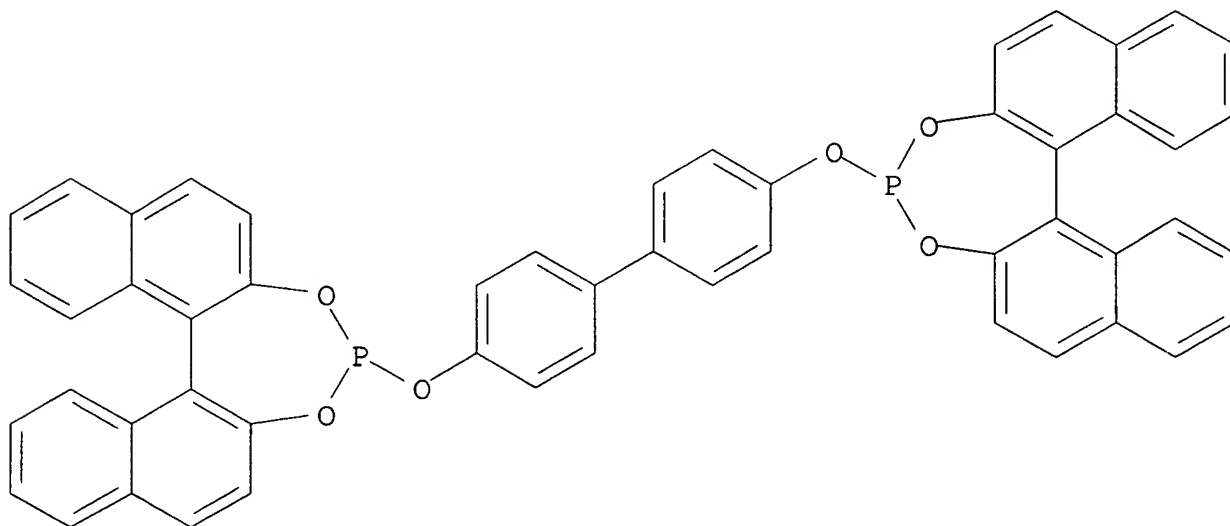
(preparation of chiral di- and triphosphites and their use in rhodium

catalyzed enantioselective hydrogenation)

RN 852457-78-4 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphin,
4,4'-[[1,1'-biphenyl]-4,4'-

diylbis(oxy)]bis-, (11bS,11'bs)- (9CI) (CA INDEX NAME)



L2 0 SEA SSS SAM L1

=> S L1 FULL

FULL SEARCH INITIATED 12:40:35 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3418 TO ITERATE

100.0% PROCESSED 3418 ITERATIONS

9

ANSWERS

SEARCH TIME: 00.00.01

L3 9 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE
ENTRY

TOTAL
SESSION

FULL ESTIMATED COST

166.94

167.15

FILE 'CAPLUS' ENTERED AT 12:40:45 ON 15 APR 2006

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FILE COVERS 1907 - 15 Apr 2006 VOL 144 ISS 17

FILE LAST UPDATED: 14 Apr 2006 (20060414/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.

They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> S L1 FULL

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 12:40:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3418 TO ITERATE

100.0% PROCESSED 3418 ITERATIONS

9

ANSWERS

SEARCH TIME: 00.00.01

L4 9 SEA SSS FUL L1

L5 6 L4

=> D L5 IBIB ABS HITSTR 1-6

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:980468 CAPLUS

DOCUMENT NUMBER: 143:439966

TITLE: Asymmetric styrene dimerisation using mixed
palladium-indium catalysts

AUTHOR(S): Bedford, Robin B.; Betham, Michael; Blake,
Michael E.;

Garces, Andres; Millar, Sarah L.; Prashar,
Sanjiv

CORPORATE SOURCE: School of Chemistry, University of Bristol,
Bristol,

SOURCE: BS8 1TS, UK
Tetrahedron (2005), 61(41), 9799-9807
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:439966

AB Catalysts formed in situ from mixts. of palladium acetate,
indium(III)

triflate and a chiral non-chelating bis(phosphite) ligand give
good to
excellent conversions and reasonable enantioselectivity in the
asym.

dimerization of styrenes RCH:CH₂ (R = Ph, 4-FC₆H₄, 2-MeC₆H₄) with
formation of aryl alkenes RCHMeCH:CHR.

IT 868638-19-1P

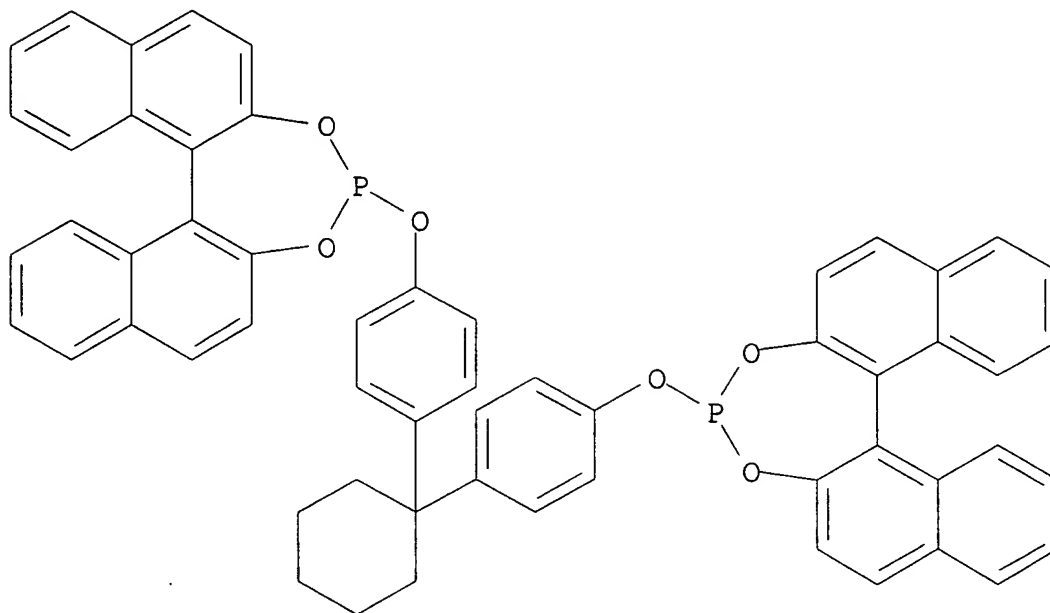
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP
(Preparation);

USES (Uses)

(asym. dimerization of styrenes using
palladium-indium-phosphite
catalysts)

RN 868638-19-1 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphospherin, 4,4'-
 [cyclohexylidenebis(4,1-phenyleneoxy)]bis-, (11bS,11'bs)- (9CI)
 (CA INDEX
 NAME)



REFERENCE COUNT:
 AVAILABLE FOR THIS

30

THERE ARE 30 CITED REFERENCES

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:568657 CAPLUS

DOCUMENT NUMBER: 141:107153

TITLE: Liquid-crystalline polyester compositions
 with

excellent heat resistance and molded

products thereof

INVENTOR(S):

Okamoto, Satoshi; Hirakawa, Manabu

PATENT ASSIGNEE(S):

Sumitomo Chemical Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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JP 2004196886	A2	20040715	JP 2002-364770
20021217			

PRIORITY APPLN. INFO.:

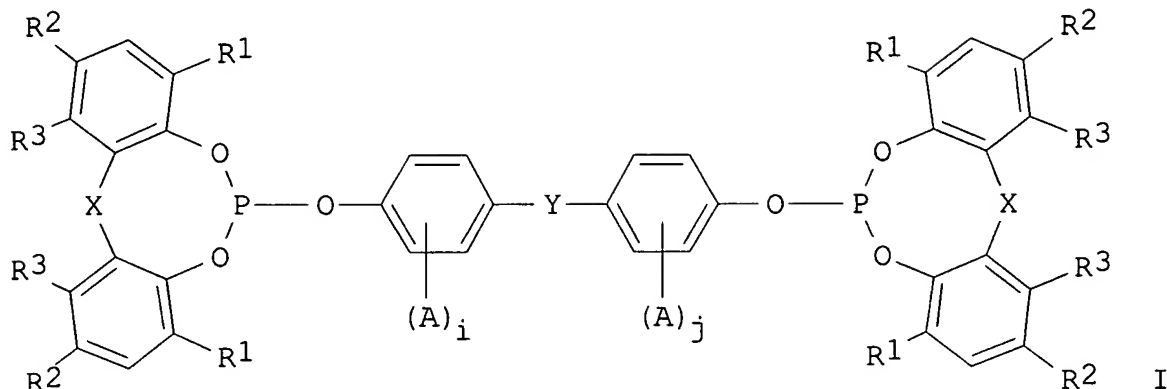
JP 2002-364770

20021217

OTHER SOURCE(S):

MARPAT 141:107153

GI



AB The compns. contain ≥ 1 phosphorous esters I ($R_1, R_2 = H, C1-8$ alkyl, $C5-8$ cycloalkyl, $C6-12$ alkyl-substituted cycloalkyl, $C7-12$ aralkyl, Ph; $R_3 = H, C1-8$ alkyl; $X =$ direct link, S, CHR_4 ; $R_4 = H, C1-8$ alkyl, $C5-8$ cycloalkyl; $A = H, \text{halo}, C1-8$ alkyl; $Y =$ direct link, $C1-20$ alkylene, CO,

sulfone, S, O; $i, j = 0-4$). Thus, p-hydroxybenzoic acid 911, 4,4'-dihydroxybiphenyl 409, terephthalic acid 274, isophthalic acid 91,

and Ac2O 1235 g were heated to 150° , refluxed for 3 h, further heated to 320° while removing byproduct AcOH and free Ac2O, cooled,

crushed, and further polymerized in a solid state to give a polyester, which

was blended with 0.10% I ($R_1, R_2 = CMe_3$; $R_3, A = H$; $X =$ direct link; $Y =$

S) and 40% milled glass (EFH 7501), pelletized, and injection molded to

give a test piece showing no blisters in a solder bath at 300° for

5 min and melt viscosity 270 Pa-s at 370° after 1 min and 25,300 after 60 min.

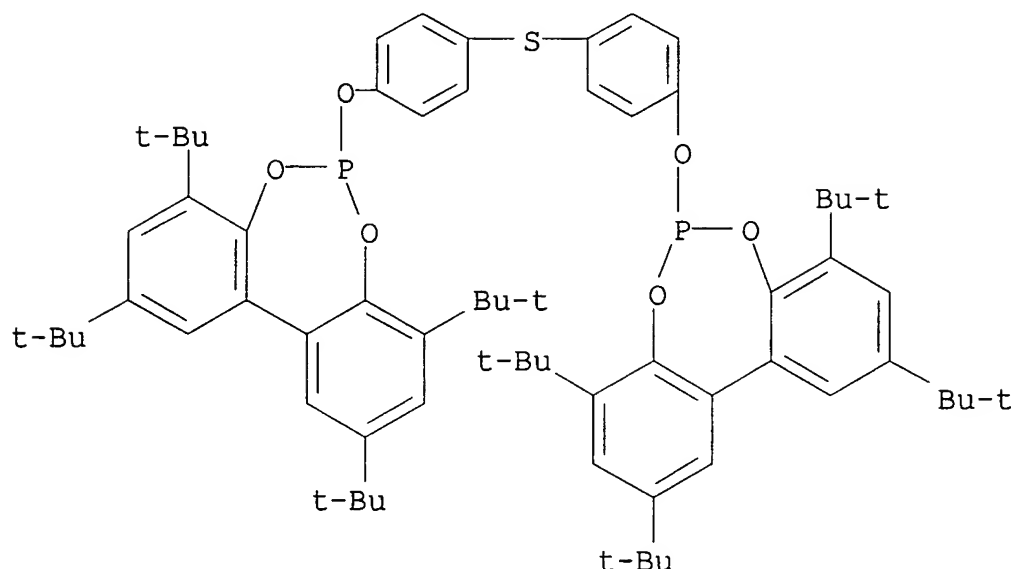
IT 669700-41-8, Dibenzo[d,f][1,3,2]dioxaphosphin,

6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-

RL: MOA (Modifier or additive use); USES (Uses)

(liquid-crystalline polyester-phosphorous ester compns. with good heat

resistance)
 RN 669700-41-8 CAPLUS
 CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)
 (CA INDEX
 NAME)



L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:203840 CAPLUS
 DOCUMENT NUMBER: 140:253715
 TITLE: Process for preparation of phosphorous esters
 INVENTOR(S): Higo, Mutsuko; Tanaka, Masaaki; Awa, Hideaki
 PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
WO 2004020447	A1	20040311	WO 2003-JP10680
20030825			

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
 PG, PH,
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
 TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI,
 SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG
 JP 2004091363 A2 20040325 JP 2002-253210
 20020830
 AU 2003257678 A1 20040319 AU 2003-257678
 20030825
 US 2005247913 A1 20051110 US 2005-525523
 20050224
 PRIORITY APPLN. INFO.: JP 2002-253210 A
 20020830 WO 2003-JP10680 W
 20030825
 OTHER SOURCE(S): MARPAT 140:253715
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB This invention pertains to a method for producing phosphorous esters with
 general formula of I [wherein R1 and R2 = independently H, alkyl, cycloalkyl, alkylcycloalkyl, aralkyl, or Ph; R3 = H or alkyl;
 R4-R7 =
 independently H, alkyl, cycloalkyl, alkylcycloalkyl, aralkyl, Ph, alkoxy,
 or halo, etc.; X = a single bond, S, or (un)substituted CH2; A = a single
 bond, O, S, SO2, SO, CO, phenylene, or (un)substituted CH2, etc.]. For
 example, 3,3',5,5'-tetra-tert-butylbiphenyl-2,2'-diol was treated with
 PCl3 in toluene in the presence of NEt3, followed by the addition of
 bis(4-hydroxyphenyl)sulfide and NEt3 to give II. I are useful as organic
 material stabilizers.
 IT 669700-41-8P 669700-42-9P 669700-43-0P
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
 PREP

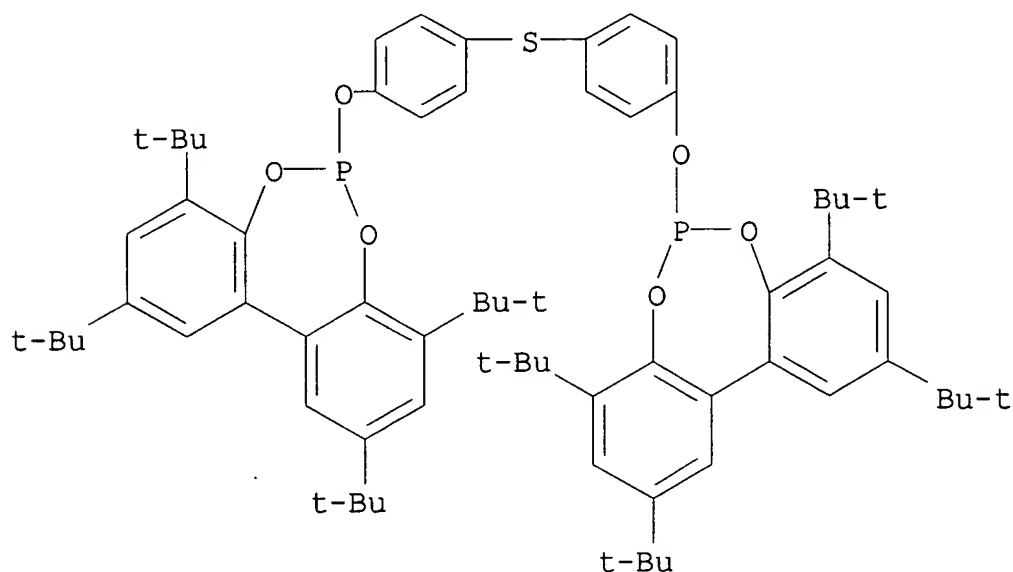
(Preparation)

(preparation of phosphorous esters)

RN 669700-41-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphhepin, 6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

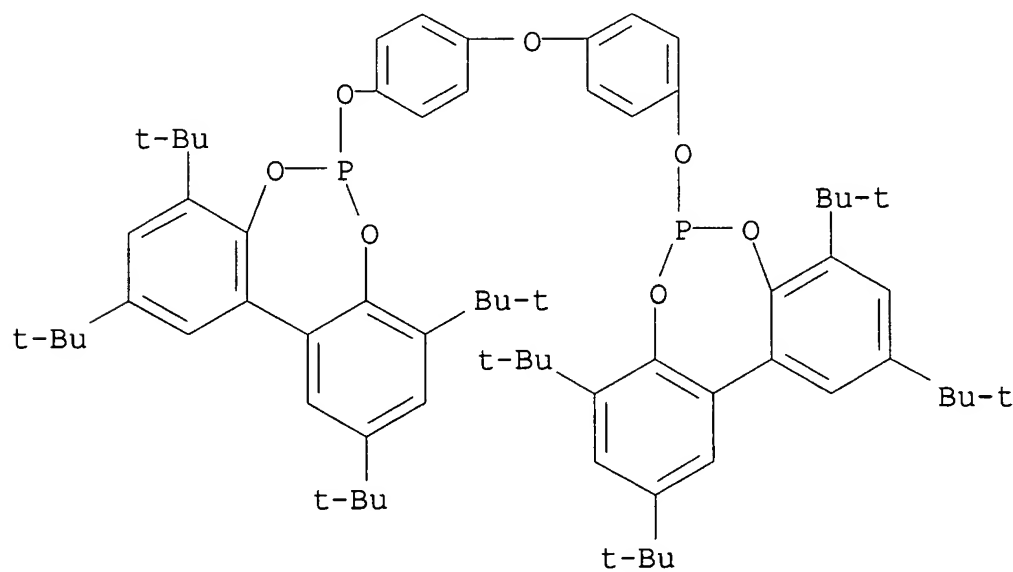
(CA INDEX
NAME)



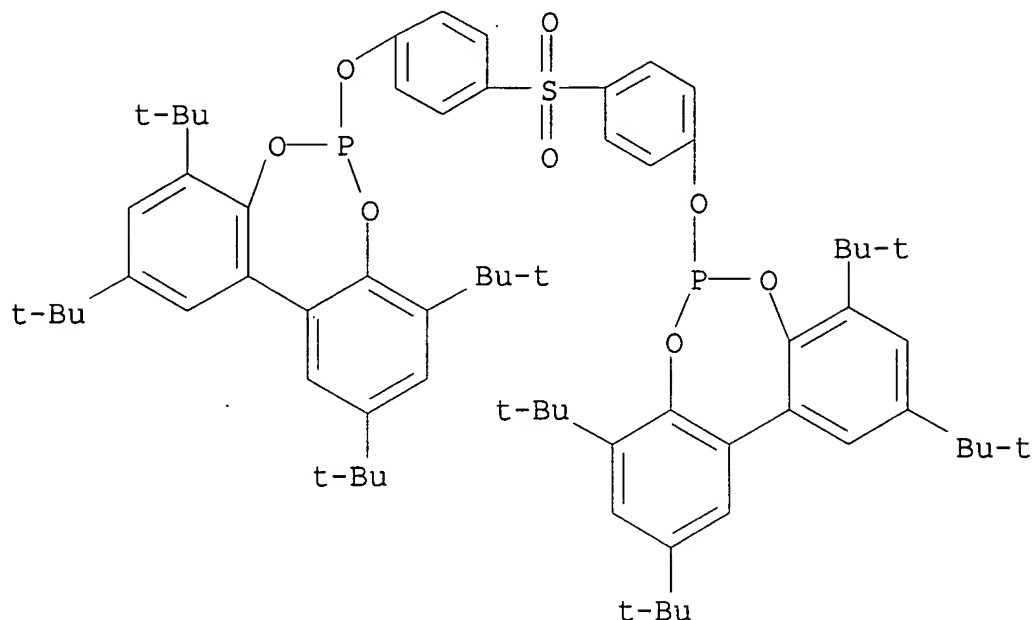
RN 669700-42-9 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphhepin, 6,6'-[oxybis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX
NAME)



RN 669700-43-0 CAPLUS
 CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[sulfonylbis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)
 (CA INDEX
 NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
 FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:910838 CAPLUS
 DOCUMENT NUMBER: 136:294923
 TITLE: Synthesis of Ru-Arene complexes of
 Me-Duphos. X-ray,
 PGSE NMR diffusion and catalytic studies
 AUTHOR(S): Chen, Yang; Valentini, Massimiliano;
 Pregosin, Paul
 S.; Albinati, Alberto
 CORPORATE SOURCE: Laboratorium fur Anorganische Chemie, ETHZ,
 Zurich,
 CH-8093, Switz.
 SOURCE: Inorganica Chimica Acta (2002), 327, 4-14
 CODEN: ICHAA3; ISSN: 0020-1693
 PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:294923
 AB Cationic [RuCl(arene)(Me-Duphos)]Cl complexes, arene =
 η⁶-benzene and

η^6 -p-cymene, Me-Duphos = 1,2-bis-((2R,5R)-2,5-dimethylphospholano)benzene were prepared and studied by x-ray crystallog.

and NMR spectroscopy. For example reaction of $[(\eta^6\text{-p-cymene})\text{RuCl}_2]_2$

and Me-Duphos in ethanol and benzene to give

$[\text{RuCl}(\eta^6\text{-p-cymene})(\text{Me-}$

Duphos)]Cl in 95% yield followed by crystal structure anal. of this compound

(space group = P1; a = 7.7970Å; b = 9.0194Å; c = 9.7616Å; Z = 1). PGSE NMR diffusion studies were used to recognize (a) ion pairing as

a function of solvent and (b) larger mol. vols. Several arene-Ru-complexes are useful catalyst precursors in the hydrolysis of terminal aryl alkynes to afford acetophenones.

IT 408357-68-6

RL: RCT (Reactant); RACT (Reactant or reagent)

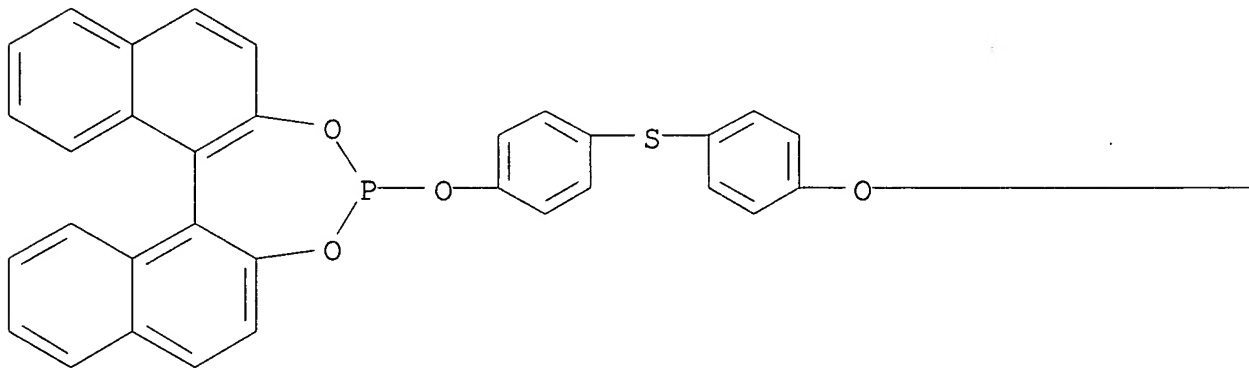
(preparation of benzene or cymene ruthenium Me-Duphos or tri-Bu phosphine complexes)

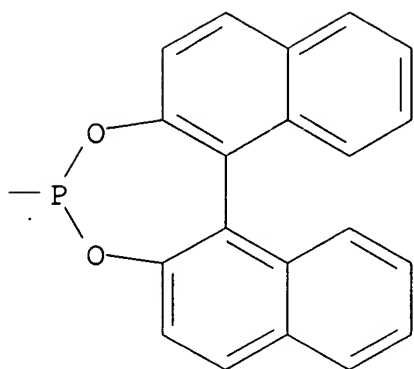
RN 408357-68-6 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin,

4,4'-[thiobis(4,1-phenyleneoxy)]bis- (9CI) (CA INDEX NAME)

PAGE 1-A





IT 408357-60-8P 408357-63-1P

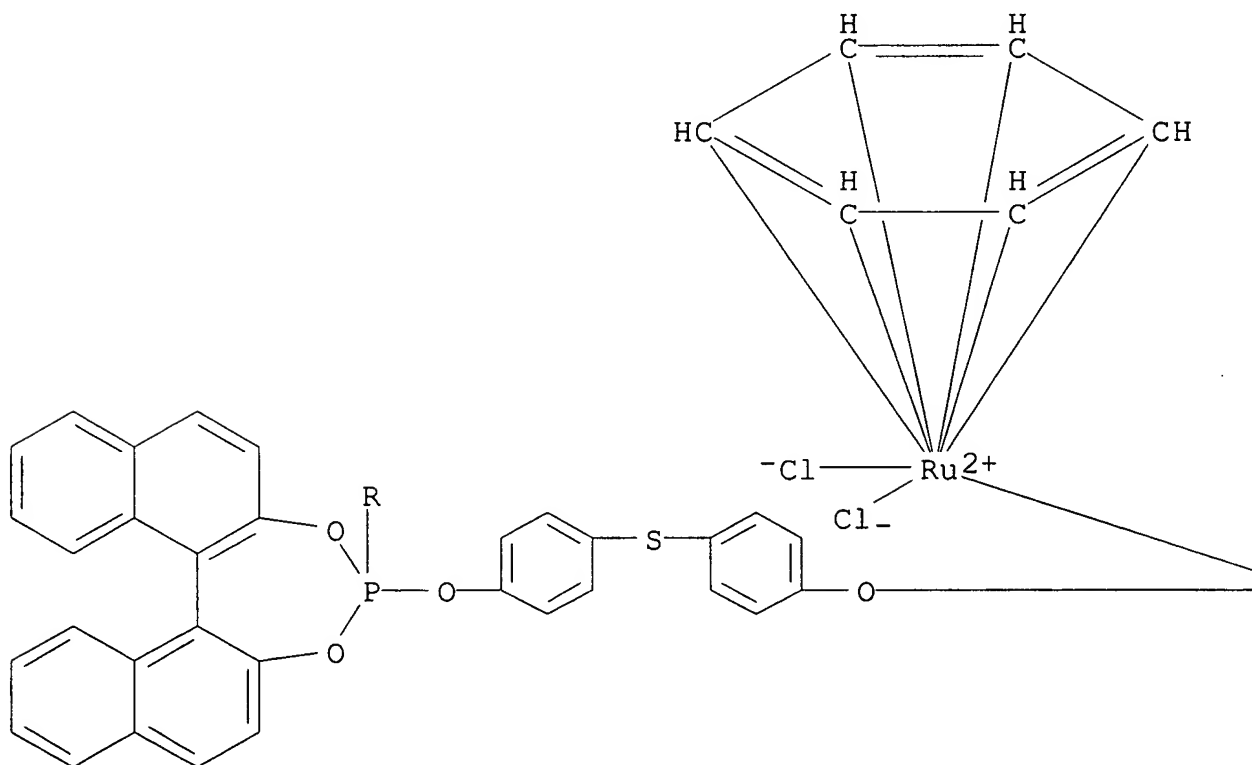
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

USES (Uses)

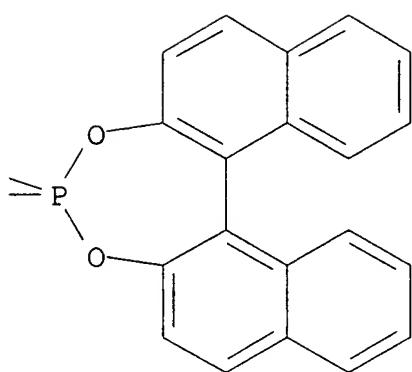
(preparation, and catalyst for hydration of terminal alkynes)

RN 408357-60-8 CAPLUS

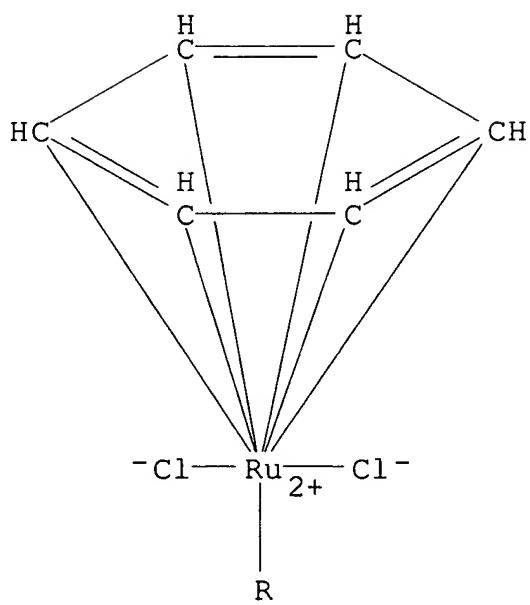
CN Ruthenium, bis(η⁶-benzene)tetrachloro[μ-[4,4'-[thiobis(4,1-phenyleneoxy)]bis[dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-κP4]]]di- (9CI) (CA INDEX NAME)



PAGE 1-B

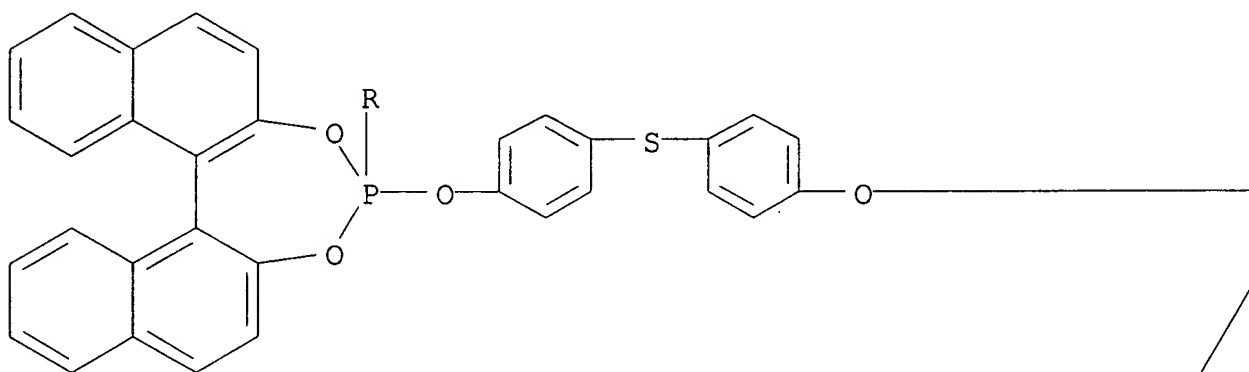


PAGE 2-A



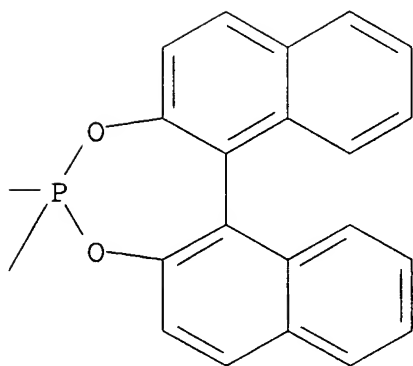
CN Ruthenium, tetrachlorobis[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene][μ-[4,4'-[thiobis(4,1-phenyleneoxy)]bis[dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-κP4]]]di- (9CI) (CA INDEX NAME)

PAGE 1-A

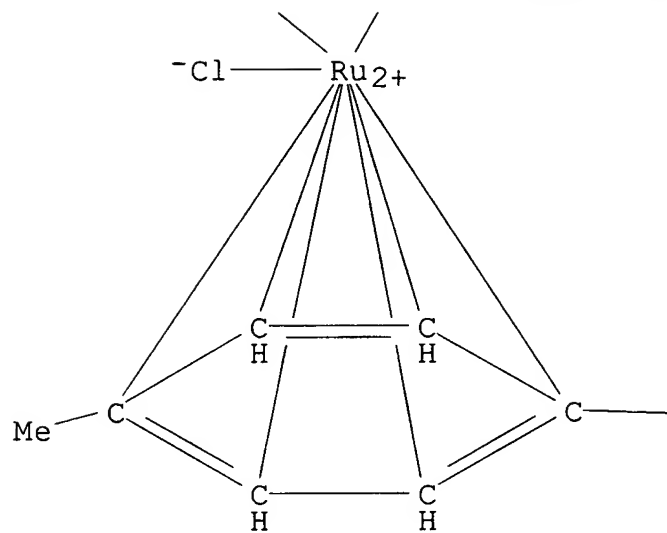


Cl⁻

PAGE 1-B

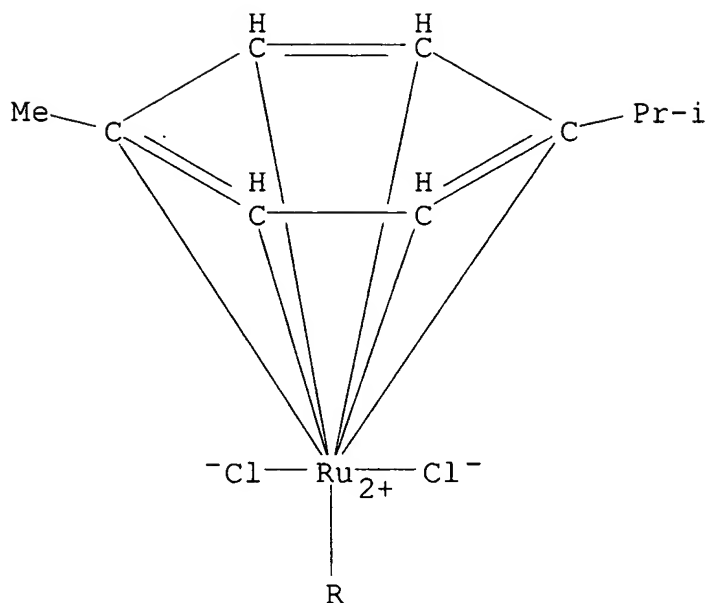


PAGE 2-A



PAGE 2-B

Pr-i



REFERENCE COUNT:
AVAILABLE FOR THIS

47

THERE ARE 47 CITED REFERENCES

RE FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:517287 CAPLUS

DOCUMENT NUMBER: 111:117287

TITLE: Homogeneous rhodium carbonyl
compound-phosphite ligand

catalysts and process for olefin

hydroformylation

INVENTOR(S): Billig, Ernst; Abatjoglou, Anthony G.;
Bryant, David

R.

PATENT ASSIGNEE(S): Union Carbide Corp., USA

SOURCE: U.S., 27 pp. Cont.-in-part of U.S. 4,668,651.

CODEN: USXXAM

DOCUMENT TYPE: Patent

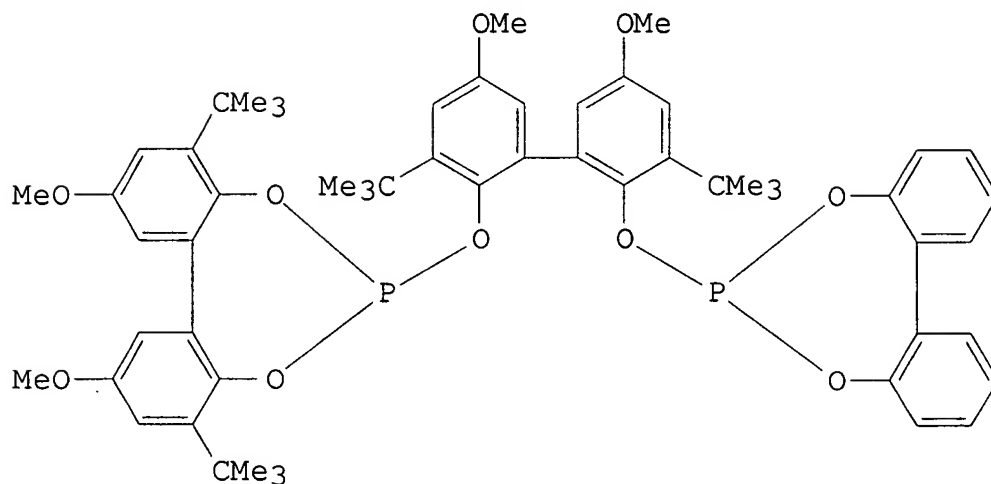
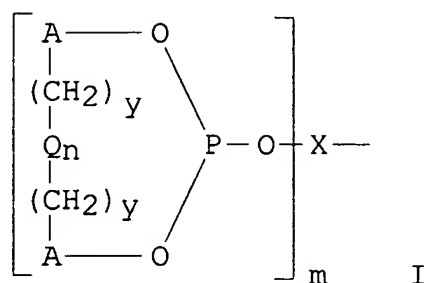
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 4769498	A	19880906	US 1987-12329
19870209			
US 4668651	A	19870526	US 1985-772859
19850905			

CA 1281704	A1	19910319	CA 1986-516846	
19860826				
DK 8604234	A	19870306	DK 1986-4234	
19860904				
FI 8603570	A	19870306	FI 1986-3570	
19860904				
FI 88916	B	19930415		
FI 88916	C	19930726		
NO 8603546	A	19870306	NO 1986-3546	
19860904				
NO 167652	B	19910819		
NO 167652	C	19911127		
CN 86106811	A	19870429	CN 1986-106811	
19860904				
CN 1007348	B	19900328		
ZA 8606728	A	19870429	ZA 1986-6728	
19860904				
BR 8604261	A	19870505	BR 1986-4261	
19860904				
JP 62116535	A2	19870528	JP 1986-206937	
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JP 04051531	B4	19920819		
ES 2001416	A6	19880516	ES 1986-1617	
19860904				
HU 46642	A2	19881128	HU 1986-3820	
19860904				
HU 204489	B	19920128		
IN 168034	A	19910126	IN 1986-MA713	
19860904				
PL 152601	B1	19910131	PL 1986-261286	
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CS 275462	B2	19920219	CS 1986-6430	
19860904				
CS 275474	B2	19920219	CS 1988-7490	
19860904				
AU 8662373	A1	19870312	AU 1986-62373	
19860905				
AU 597593	B2	19900607		
RU 2005713	C1	19940115	RU 1987-4028803	
19870106				
CN 1041761	A	19900502	CN 1989-107465	
19890919				
CN 1021202	B	19930616		
PRIORITY APPLN. INFO.:			US 1985-772859	A2
19850905			SU 1987-4028803	A
19870106				
OTHER SOURCE(S):		CASREACT 111:117287; MARPAT 111:117287		
GI				



II

AB Catalysts for the hydroformylation of C2-20 α -olefins and C4-20 internal olefins comprise Rh carbonyl compds. complexed with phosphite ligands I (A = C6-18 (un)substituted arylene; Q = C(R1)R2, O, S, NR3, Si(R4)R5, CO; R1, R2 = H, C1-12 alkyl, Ph, tolyl, anisyl; R3-R5 = H, Me; X = m-valent radical selected from alkylene, alkylene-oxy-alkylene, arylene, arylene-(CH2)yQn(CH2)y-arylene; such that arylene has a divalent definition; m = 2-6; n = y = 0,1]. 1-Butene was hydroformylated in the presence of a catalyst comprising Rh dicarbonyl acetylacetonate, phosphite II, and CO/H (1:2 molar ratio) at 70°/100 psi-absolute, producing n-valeraldehyde/2-methylbutyraldehyde in a 50.5:1 molar ratio at 5-20% 1-butene conversion.

IT 108793-42-6 108793-44-8
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, containing rhodium carbonyl compds., for hydroformylation of α - and internal olefins)

RN 108793-42-6 CAPLUS

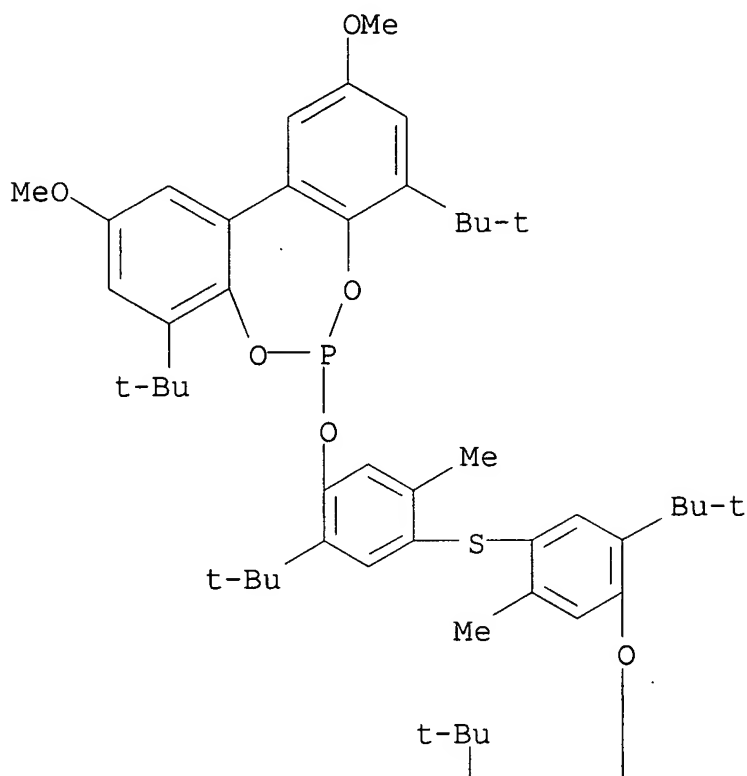
CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-dimethox

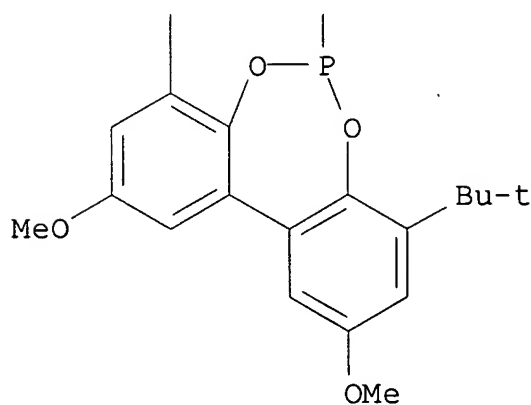
y-

(9CI) (CA INDEX NAME)

PAGE 1-A



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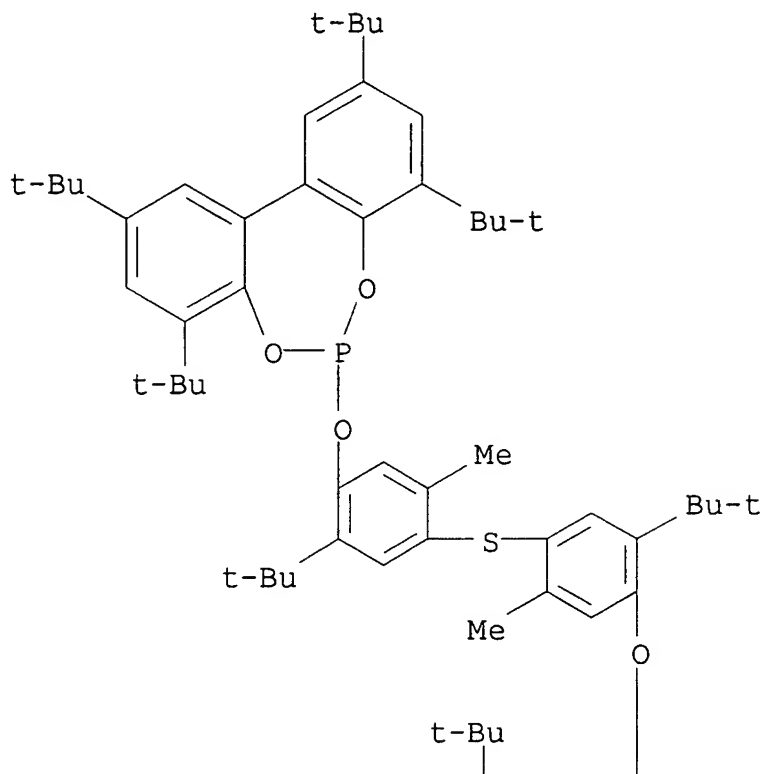
RN 108793-44-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

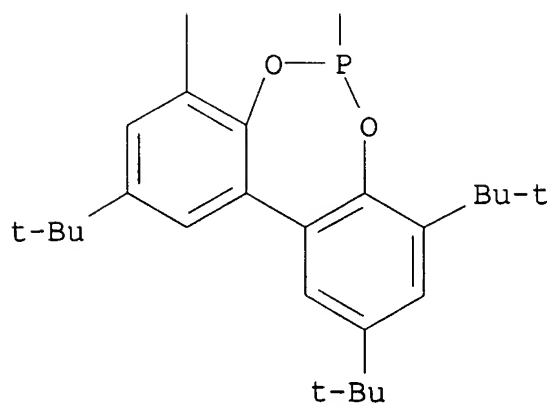
methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-
(9CI)

(CA INDEX NAME)

PAGE 1-A



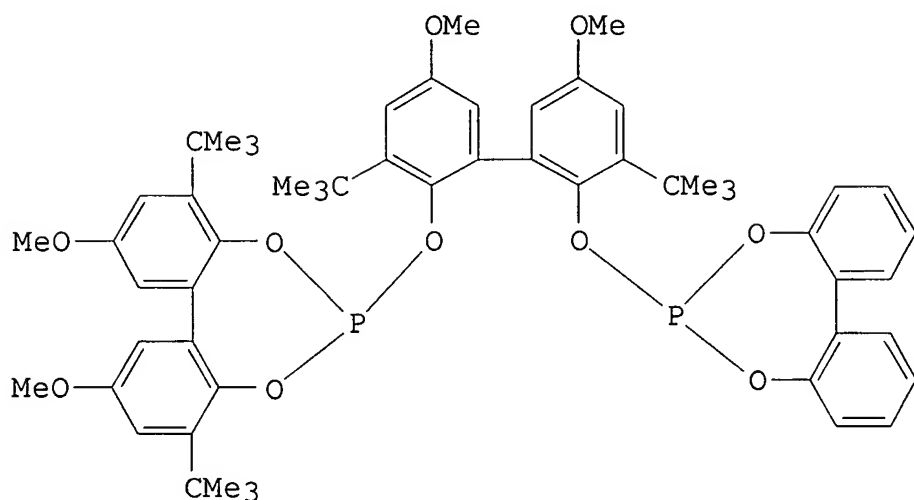
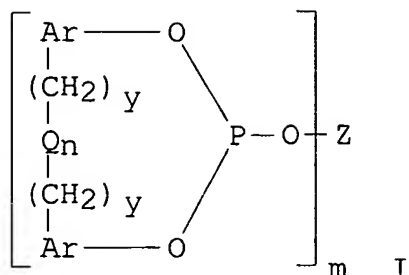
PAGE 2-A



L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:425126 CAPLUS
 DOCUMENT NUMBER: 107:25126
 TITLE: Transition metal complex-catalyzed processes
 INVENTOR(S): Billig, Ernst; Abatjoglou, Anthony George;
 Bryant,
 David Robert
 PATENT ASSIGNEE(S): Union Carbide Corp., USA
 SOURCE: Eur. Pat. Appl., 83 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
EP 214622 19860904	A2	19870318	EP 1986-112257
EP 214622	A3	19880518	
EP 214622	B1	19920513	
R: AT, BE, DE, FR, GB, IT, NL, SE			
US 4668651 19850905	A	19870526	US 1985-772859
CA 1281704 19860826	A1	19910319	CA 1986-516846
DK 8604234 19860904	A	19870306	DK 1986-4234
FI 8603570 19860904	A	19870306	FI 1986-3570
FI 88916	B	19930415	
FI 88916	C	19930726	
NO 8603546 19860904	A	19870306	NO 1986-3546
NO 167652	B	19910819	
NO 167652	C	19911127	
CN 86106811 19860904	A	19870429	CN 1986-106811
CN 1007348	B	19900328	
ZA 8606728 19860904	A	19870429	ZA 1986-6728
BR 8604261 19860904	A	19870505	BR 1986-4261
JP 62116535 19860904	A2	19870528	JP 1986-206937
JP 04051531	B4	19920819	
ES 2001416 19860904	A6	19880516	ES 1986-1617
HU 46642 19860904	A2	19881128	HU 1986-3820

HU 204489	B	19920128		
IN 168034	A	19910126	IN 1986-MA713	
19860904				
PL 152601	B1	19910131	PL 1986-261286	
19860904				
CS 275462	B2	19920219	CS 1986-6430	
19860904				
CS 275474	B2	19920219	CS 1988-7490	
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AT 76054	E	19920515	AT 1986-112257	
19860904				
AU 8662373	A1	19870312	AU 1986-62373	
19860905				
AU 597593	B2	19900607		
RU 2005713	C1	19940115	RU 1987-4028803	
19870106				
CN 1041761	A	19900502	CN 1989-107465	
19890919				
CN 1021202	B	19930616		
PRIORITY APPLN. INFO.:			US 1985-772859	A
19850905				
			EP 1986-112257	A
19860904				
			SU 1987-4028803	A
19870106				
GI				



II

AB Catalysts for carbonylation processes, especially hydroformylation, comprise complexes of Group VIII metal (especially Rh) carbonyl compds. and phosphites I

(Ar = aromatic group; Z = aliphatic or aromatic group with valence m; Q = CR₁R₂, O, S, NR₃, SiR₄R₅, CO; R₁ and R₂ = H, alkyl, Ph, tolyl, anisyl; R₃, R₄, and

R₅ = H or Me; n = 0 or 1; m = 2-6; y = 0 or 1). The hydroformylation of

1-butene in the presence of a catalyst comprising rhodium dicarbonyl

acetylacetonate and the phosphite II gave valeraldehyde and 2-methylbutyraldehyde.

IT 108793-42-6 108793-44-8

RL: CAT (Catalyst use); USES (Uses)

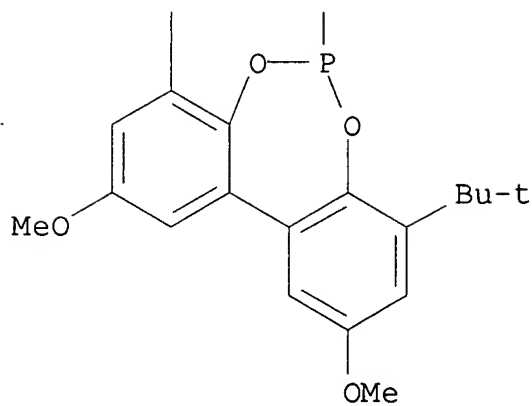
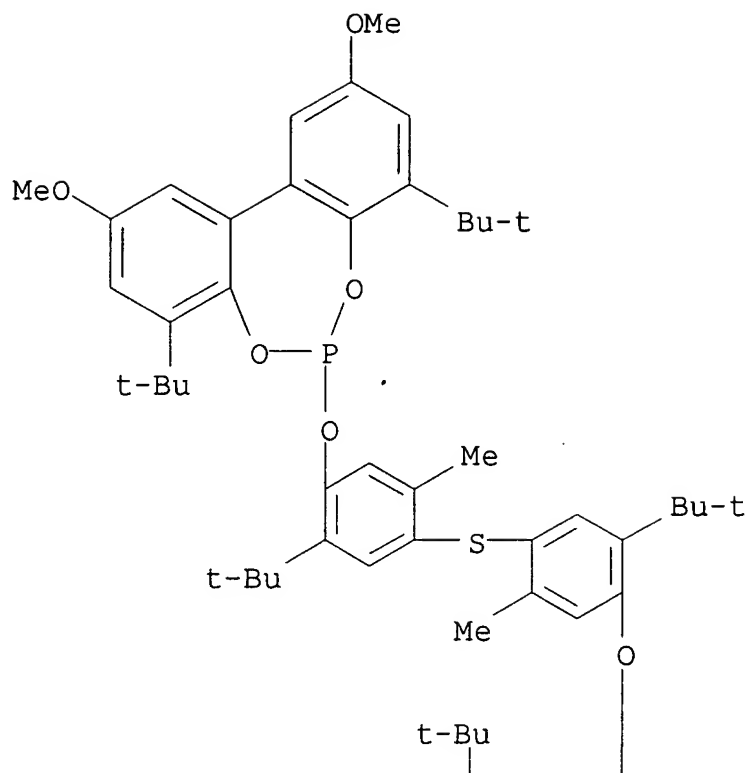
(catalysts, for hydroformylation of olefins)

RN 108793-42-6 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-dimethoxy-

(9CI) (CA INDEX NAME)



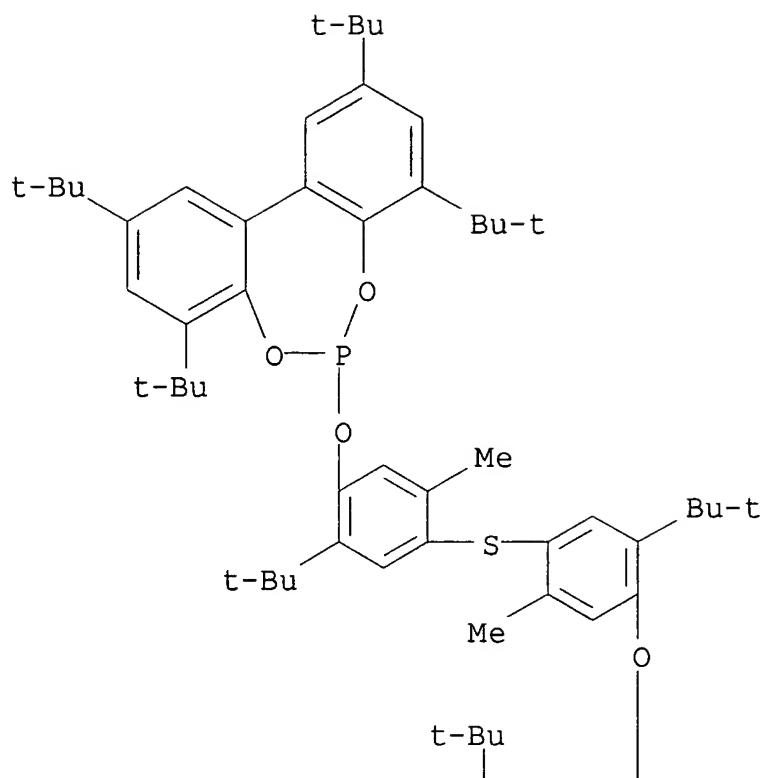
RN 108793-44-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

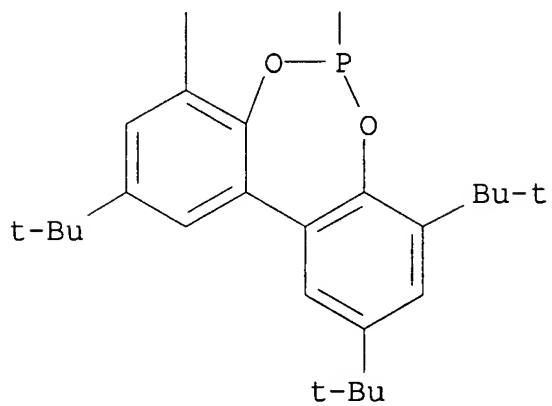
methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-
(9CI)

(CA INDEX NAME)

PAGE 1-A



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=> d ibib abs hitstr 1-20

L8 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:980468 CAPLUS

DOCUMENT NUMBER: 143:439966

TITLE: Asymmetric styrene dimerisation using mixed palladium-indium catalysts

AUTHOR(S): Bedford, Robin B.; Betham, Michael; Blake, Michael E.;

Garces, Andres; Millar, Sarah L.; Prashar, Sanjiv

CORPORATE SOURCE: School of Chemistry, University of Bristol, Bristol,

SOURCE: BS8 1TS, UK
Tetrahedron (2005), 61(41), 9799-9807
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:439966

AB Catalysts formed in situ from mixts. of palladium acetate, indium(III)

triflate and a chiral non-chelating bis(phosphite) ligand give good to

excellent conversions and reasonable enantioselectivity in the asym.

dimerization of styrenes $RCH:CH_2$ ($R = Ph, 4-FC_6H_4, 2-MeC_6H_4$) with formation of aryl alkenes $RCHMeCH:CHR$.

IT 868638-19-1P 868638-20-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

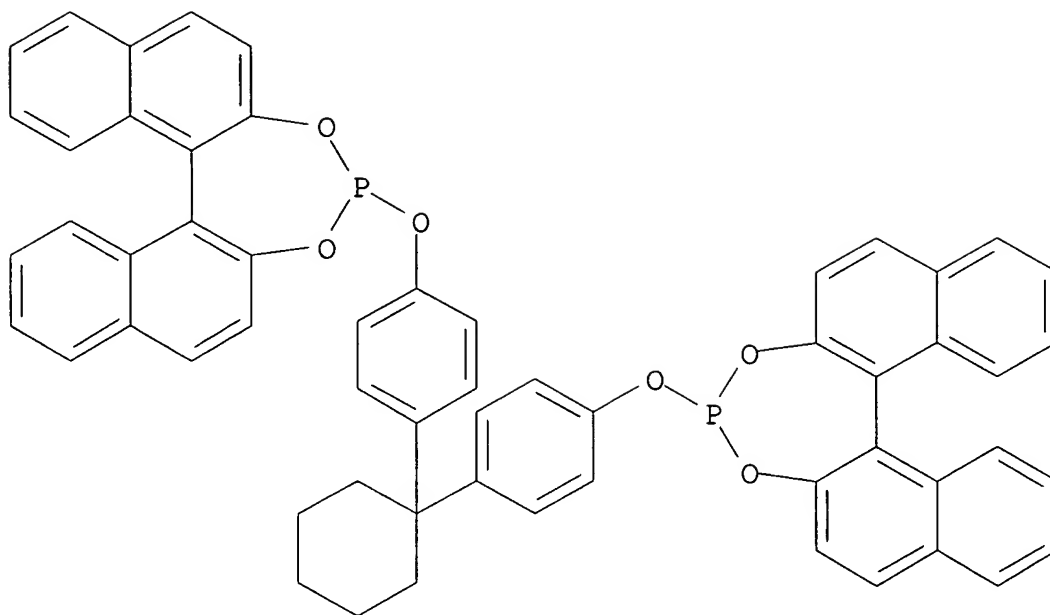
USES (Uses)

(asym. dimerization of styrenes using palladium-indium-phosphite catalysts)

RN 868638-19-1 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphopin, 4,4'-[cyclohexylidenebis(4,1-phenyleneoxy)]bis-, (11bS,11'bS)- (9CI)

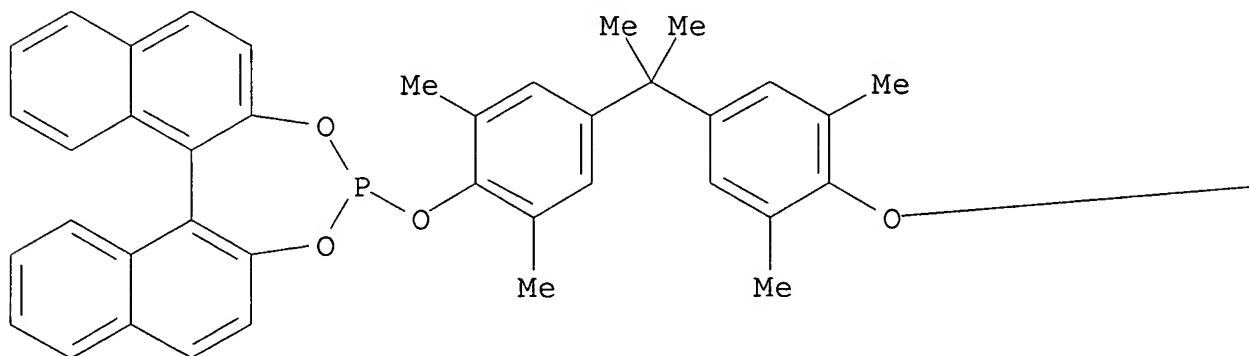
(CA INDEX NAME)

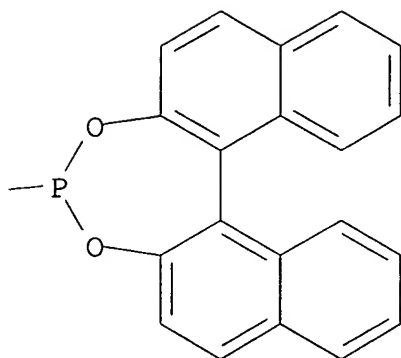


RN 868638-20-4 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin, 4,4'-[(1-methylethylidene)bis[(2,6-dimethyl-4,1-phenylene)oxy]]bis-, (11bS,11'bS)-
(9CI) (CA INDEX NAME)

PAGE 1-A





REFERENCE COUNT:
AVAILABLE FOR THIS
RE FORMAT

30 THERE ARE 30 CITED REFERENCES
RECORD. ALL CITATIONS AVAILABLE IN THE

L8 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:451393. CAPLUS

DOCUMENT NUMBER: 143:7830

TITLE: Preparation of chiral di- and triphosphites
and their

use in asymmetric catalysis
INVENTOR(S): Reetz, Manfred Theodor; Meiswinkel, Andreas;
Mehler,

Gerlinde
PATENT ASSIGNEE(S): Studiengesellschaft Kohle m.b.H., Germany
SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

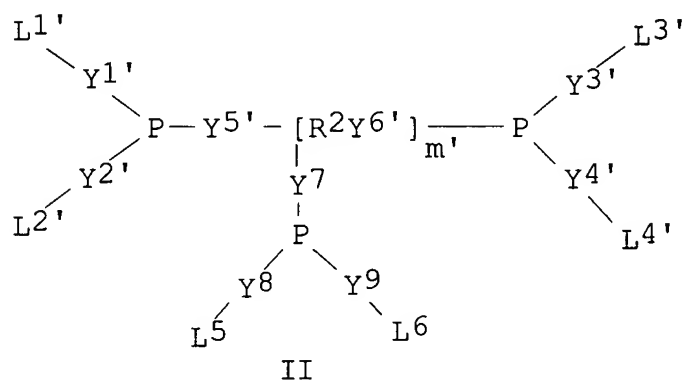
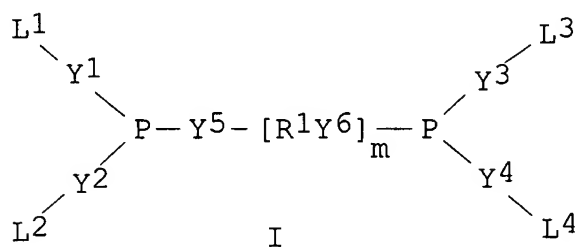
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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WO 2005047299	A2	20050526	WO 2004-DE2493
20041111			
WO 2005047299	A3	20050909	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,			
CA, CH,			
CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,			
GD, GE,			
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,			
LC, LK,			
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,			
NI, NO,			
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,			
SY, TJ,			

TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
 ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
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 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
 DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL,
 PT, RO,
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
 ML, MR,
 NE, SN, TD, TG
 DE 10352757 A1 20050616 DE 2003-10352757
 20031112
 PRIORITY APPLN. INFO.: DE 2003-10352757 A
 20031112
 OTHER SOURCE(S): MARPAT 143:7830
 GI



AB The invention claims chiral di- and triphosphites I and II (L1, L2, L3, L4, L1', L2', L3', L4', L5, L6 = chiral organic group; Y1, Y2, Y3, Y4, Y5, Y6, Y1', Y2', Y3', Y4', Y5', Y6', Y7, Y8, Y9 = same or different O, S, organoamino, etc.; R1, R2 = halo, hydroxy, nitro, cyano etc. substituted C2-22 alkylene; m, m' = 1-1000), which are bridged by suitable groups.

The claimed compds. can be used in asym. transition metal catalysis and as chiral transition metal catalysts. Thus, reaction of (S)-2,2'-binaphthylphosphoric acid diester chloride with 1,3-propanediol in Et₂O in the presence of Et₃N gave 81.1% I (L₁Y₁ and L₂Y₂ = L₃Y₃ and L₄Y₄ = binol, Y₅ = O, R₁Y₆ = CH₂CH₂CH₂O, m = 1) which was used as cocatalyst with [Rh(cod)₂]BF₄ for enantioselective hydrogenation of di-Me itaconate.

IT 329360-57-8P 852457-78-4P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

USES (Uses)

(preparation of chiral di- and triphosphites and their use in rhodium

catalyzed enantioselective hydrogenation)

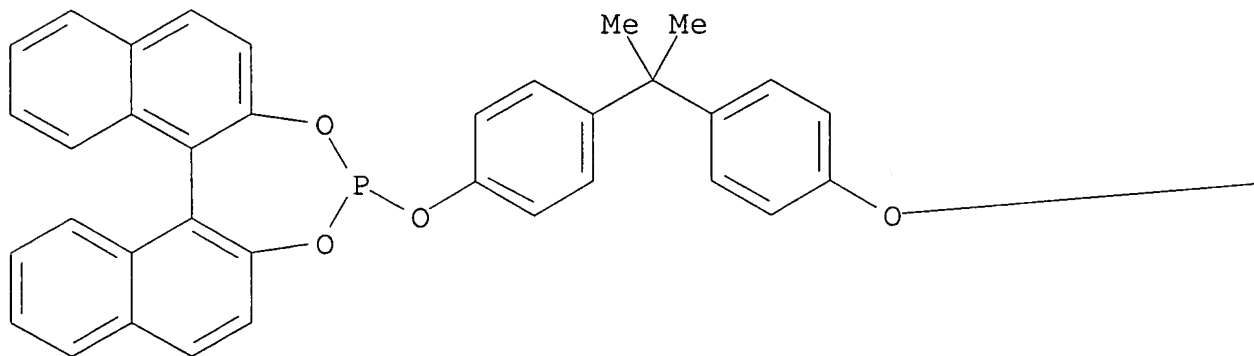
RN 329360-57-8 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin, 4,4'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis-, (11bS,11'bS)- (9CI)

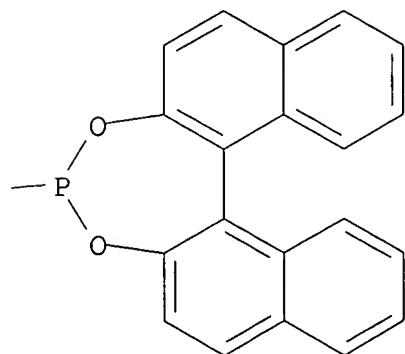
(CA

INDEX NAME)

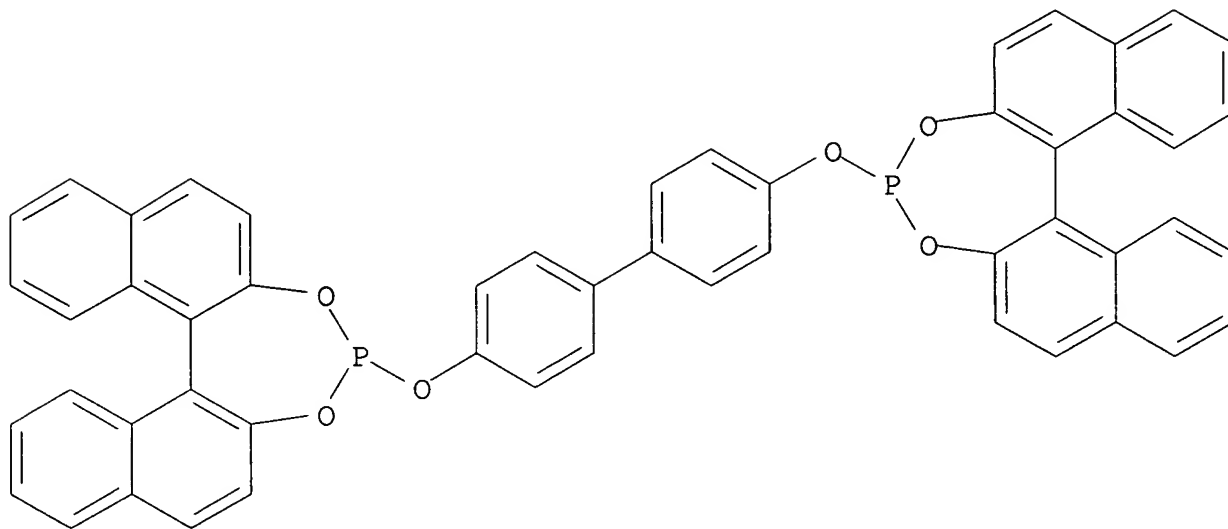
PAGE 1-A



PAGE 1-B

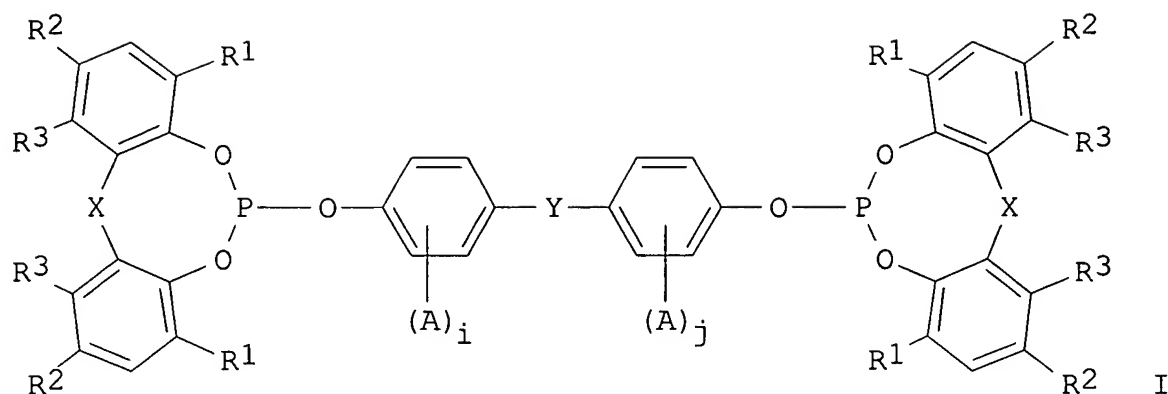


RN 852457-78-4 CAPLUS
 CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin,
 4,4'-[[1,1'-biphenyl]-4,4'-
 diylbis(oxy)]bis-, (11bS,11'bs)- (9CI) (CA INDEX NAME)



L8 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:568657 CAPLUS
 DOCUMENT NUMBER: 141:107153
 TITLE: Liquid-crystalline polyester compositions
 with excellent heat resistance and molded
 products thereof
 INVENTOR(S): Okamoto, Satoshi; Hirakawa, Manabu
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 2004196886	A2	20040715	JP 2002-364770
20021217			
PRIORITY APPLN. INFO.:			JP 2002-364770
20021217			
OTHER SOURCE(S):	MARPAT	141:107153	
GI			



AB The compns. contain ≥ 1 phosphorous esters I ($R_1, R_2 = H$, C1-8 alkyl, C5-8 cycloalkyl, C6-12 alkyl-substituted cycloalkyl, C7-12 aralkyl, Ph; $R_3 = H$, C1-8 alkyl; $X = \text{direct link, S, CHR}_4$; $R_4 = H$, C1-8 alkyl, C5-8 cycloalkyl; $A = H$, halo, C1-8 alkyl; $Y = \text{direct link, C1-20 alkylene, CO, sulfone, S, O}$; $i, j = 0-4$). Thus, p-hydroxybenzoic acid 911, 4,4'-dihydroxybiphenyl 409, terephthalic acid 274, isophthalic acid 91,

and Ac2O 1235 g were heated to 150° , refluxed for 3 h, further heated to 320° while removing byproduct AcOH and free Ac2O, cooled,

crushed, and further polymerized in a solid state to give a polyester, which

was blended with 0.10% I ($R_1, R_2 = \text{CMe}_3$; $R_3, A = H$; $X = \text{direct link}$; $Y =$

S) and 40% milled glass (EFH 7501), pelletized, and injection molded to

give a test piece showing no blisters in a solder bath at 300° for

5 min and melt viscosity 270 Pa-s at 370° after 1 min and 25,300 after 60 min.

IT 669700-41-8, Dibenzo[d,f][1,3,2]dioxaphosphopin,

6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)]-

718634-84-5

RL: MOA (Modifier or additive use); USES (Uses)

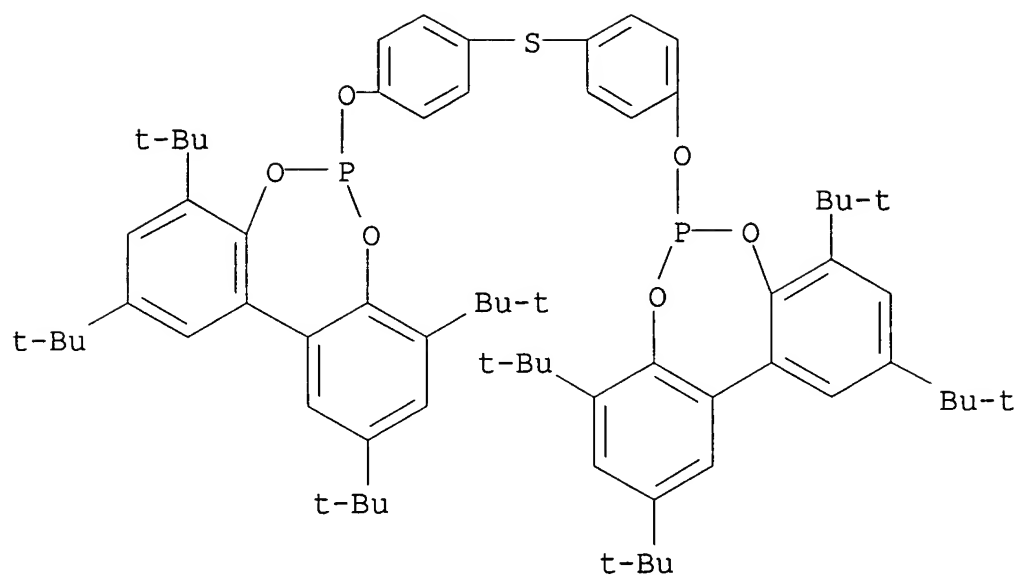
(liquid-crystalline polyester-phosphorous ester compns. with good heat resistance)

RN 669700-41-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphopin, 6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)]- (9CI)

(CA INDEX

NAME)

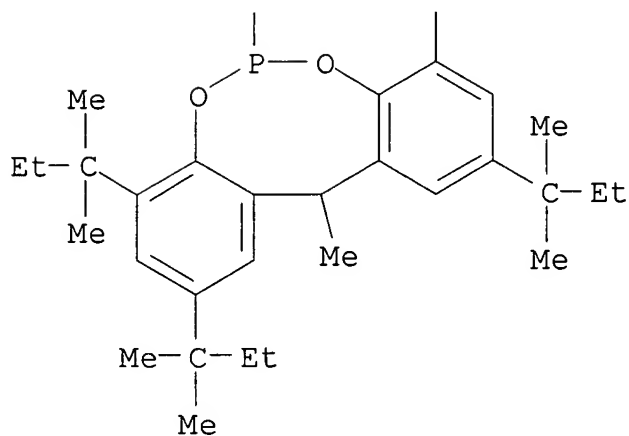
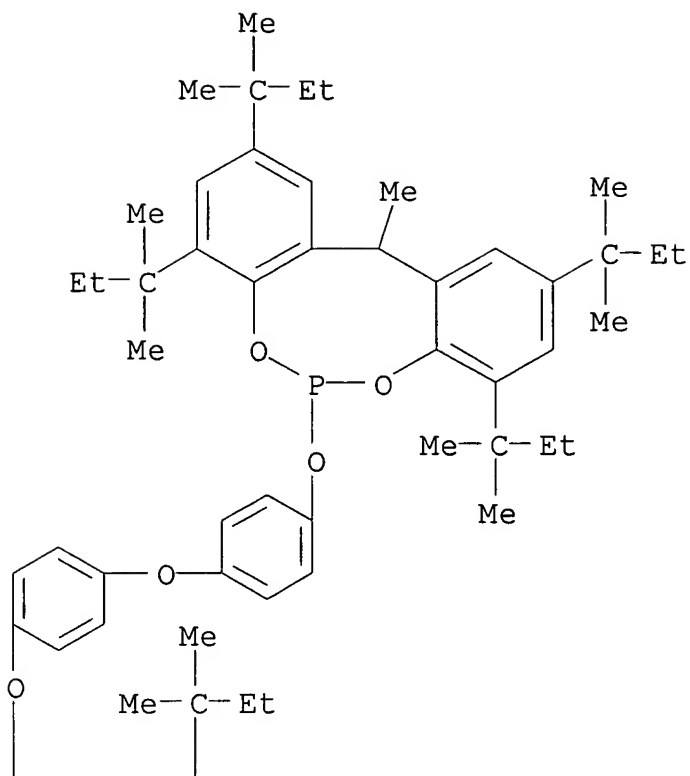


RN 718634-84-5 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[oxybis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)-12-methyl-
(9CI)

(CA INDEX NAME)



L8 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:203840 CAPLUS
 DOCUMENT NUMBER: 140:253715
 TITLE: Process for preparation of phosphorous esters
 INVENTOR(S): Higo, Mutsuko; Tanaka, Masaaki; Awa, Hideaki

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
WO 2004020447 20030825	A1	20040311	WO 2003-JP10680
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004091363 20020830	A2	20040325	JP 2002-253210
AU 2003257678 20030825	A1	20040319	AU 2003-257678
US 2005247913 20050224	A1	20051110	US 2005-525523
PRIORITY APPLN. INFO.: 20020830			JP 2002-253210 A
			WO 2003-JP10680 W
20030825			
OTHER SOURCE(S): GI	MARPAT 140:253715		

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB This invention pertains to a method for producing phosphorous esters with
 general formula of I [wherein R1 and R2 = independently H, alkyl, cycloalkyl, alkylcycloalkyl, aralkyl, or Ph; R3 = H or alkyl; R4-R7 =
 independently H, alkyl, cycloalkyl, alkylcycloalkyl, aralkyl, Ph, alkoxy,
 or halo, etc.; X = a single bond, S, or (un)substituted CH2; A = a single
 bond, O, S, SO2, SO, CO, phenylene, or (un)substituted CH2, etc.]. For
 example, 3,3',5,5'-tetra-tert-butylbiphenyl-2,2'-diol was treated with
 PCl3 in toluene in the presence of NEt3, followed by the addition of
 bis(4-hydroxyphenyl)sulfide and NEt3 to give II. I are useful as organic
 material stabilizers.

IT 669700-41-8P 669700-42-9P 669700-43-0P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation);

PREP

(Preparation)

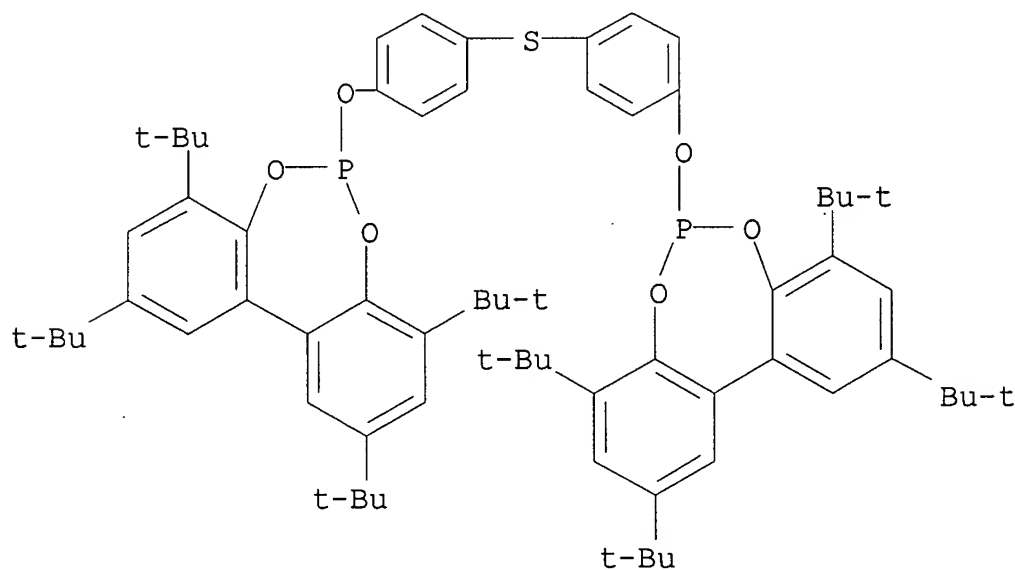
(preparation of phosphorous esters)

RN 669700-41-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[thiobis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX

NAME)

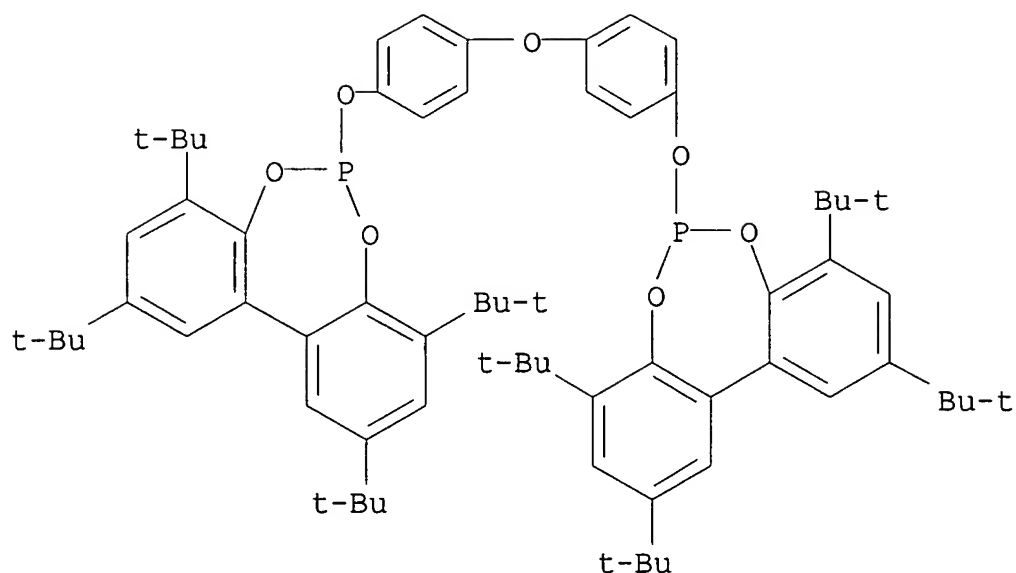


RN 669700-42-9 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[oxybis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX

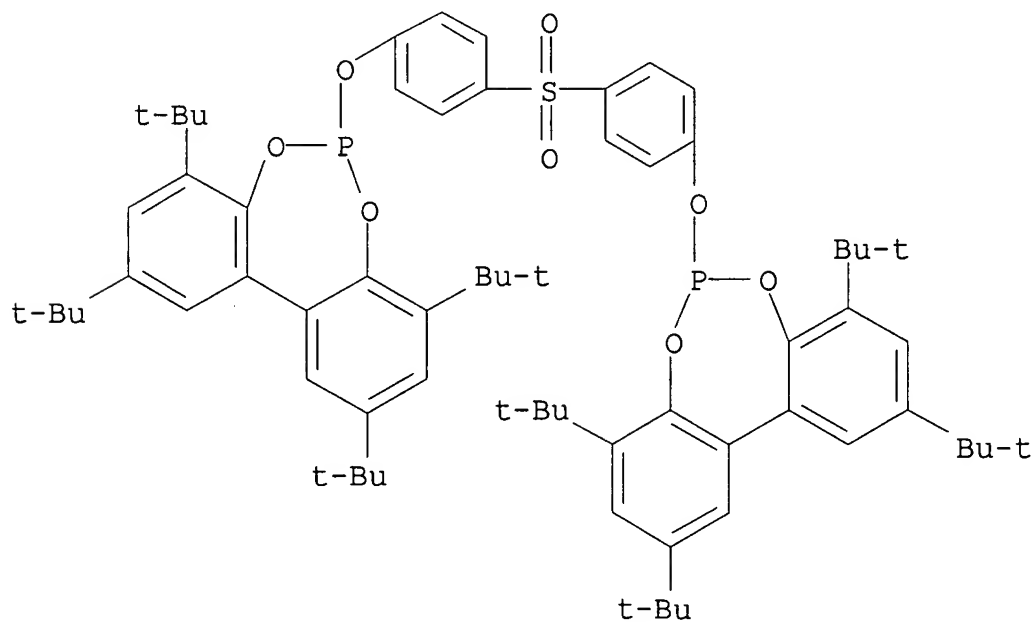
NAME)



RN 669700-43-0 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin, 6,6'-[sulfonylbis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX
NAME)



REFERENCE COUNT:
FOR THIS

RE FORMAT

4

THERE ARE 4 CITED REFERENCES AVAILABLE
RECORD. ALL CITATIONS AVAILABLE IN THE

L8 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:910838 CAPLUS

DOCUMENT NUMBER: 136:294923

TITLE: Synthesis of Ru-Arene complexes of

Me-Duphos. X-ray,

PGSE NMR diffusion and catalytic studies

AUTHOR(S): Chen, Yang; Valentini, Massimiliano;

Pregosin, Paul

S.; Albinati, Alberto

CORPORATE SOURCE: Laboratorium fur Anorganische Chemie, ETHZ,
Zurich,

CH-8093, Switz.

SOURCE: Inorganica Chimica Acta (2002), 327, 4-14

CODEN: ICHAA3; ISSN: 0020-1693

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:294923

AB Cationic [RuCl(arene)(Me-Duphos)]Cl complexes, arene =
 η^6 -benzene and

η^6 -p-cymene, Me-Duphos = 1,2-bis-((2R,5R)-2,5-
dimethylphospholano)benzene were prepared and studied by x-ray
crystallog.

and NMR spectroscopy. For example reaction of

[(η^6 -p-cymene)RuCl₂]₂

and Me-Duphos in ethanol and benzene to give

[RuCl(η^6 -p-cymene)(Me-

Duphos)]Cl in 95% yield followed by crystal structure anal. of
this compound

(space group = P1; a = 7.7970Å; b = 9.0194Å; c = 9.7616Å; Z =
1). PGSE NMR diffusion studies were used to recognize (a) ion
pairing as

a function of solvent and (b) larger mol. vols. Several
arene-Ru-complexes are useful catalyst precursors in the
hydrolysis of

terminal aryl alkynes to afford acetophenones.

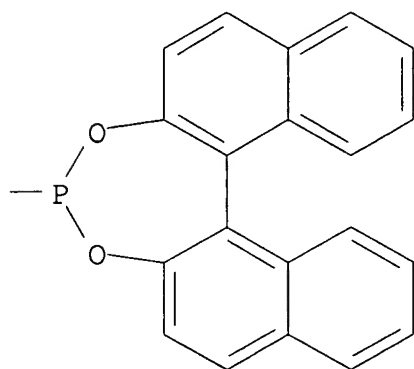
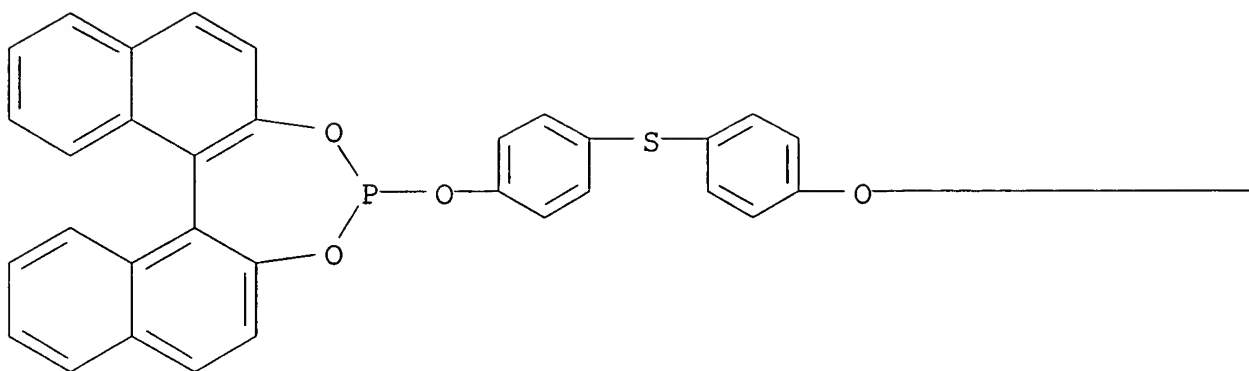
IT 408357-68-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzene or cymene ruthenium Me-Duphos or
tri-Bu phosphine
complexes)

RN 408357-68-6 CAPLUS

CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphopin,
4,4'-[thiobis(4,1-
phenyleneoxy)]bis- (9CI) (CA INDEX NAME)



IT 408357-60-8P 408357-63-1P

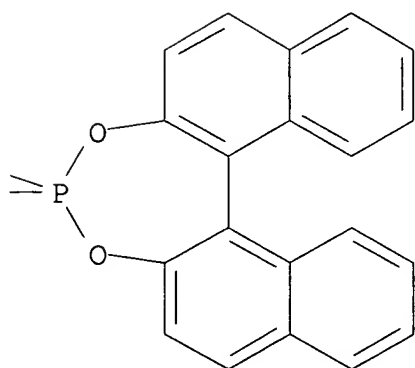
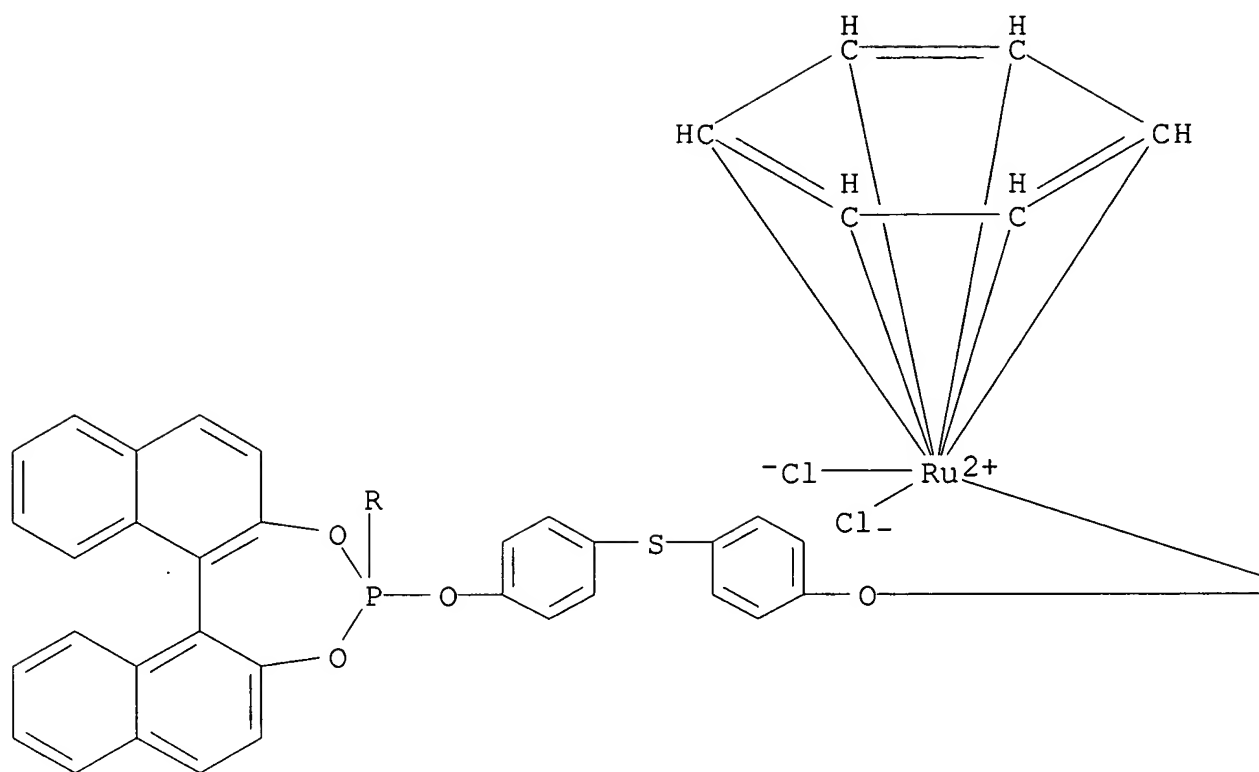
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP
(Preparation);

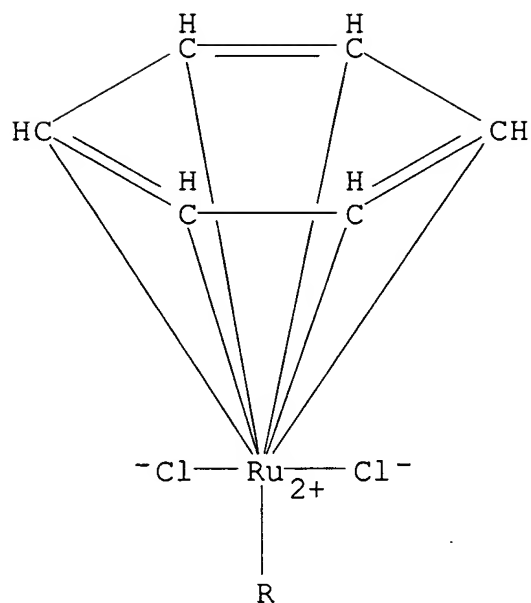
USES (Uses)

(preparation, and catalyst for hydration of terminal alkynes)

RN 408357-60-8 CAPLUS

CN Ruthenium, bis(η⁶-benzene)tetrachloro[μ-[4,4'-[thiobis(4,1-phenyleneoxy)]bis[dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-κP4]]]di- (9CI) (CA INDEX NAME)



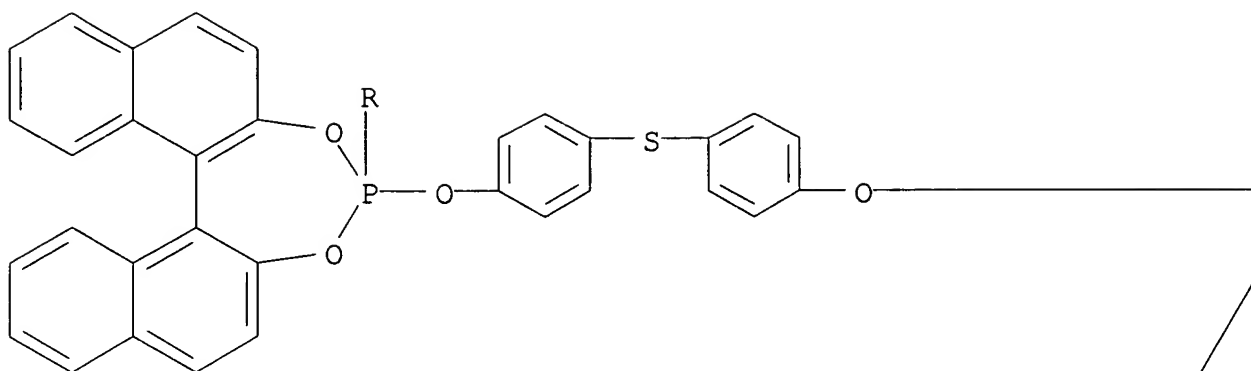


RN 408357-63-1 CAPLUS

CN Ruthenium, tetrachlorobis[(1,2,3,4,5,6-η)-1-methyl-4-(1-

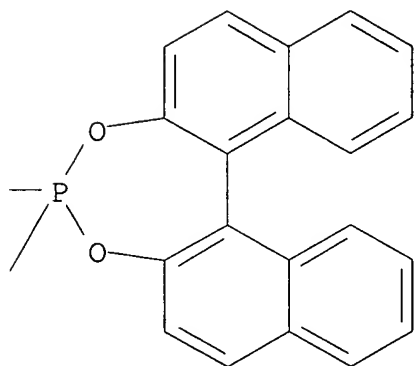
methylethyl)benzene][μ-[4,4'-[thiobis(4,1-phenyleneoxy)]bis[dinaphtho
[2
,1-d:1',2'-f][1,3,2]dioxaphosphepin-κP4]]]di- (9CI) (CA INDEX
NAME)

PAGE 1-A

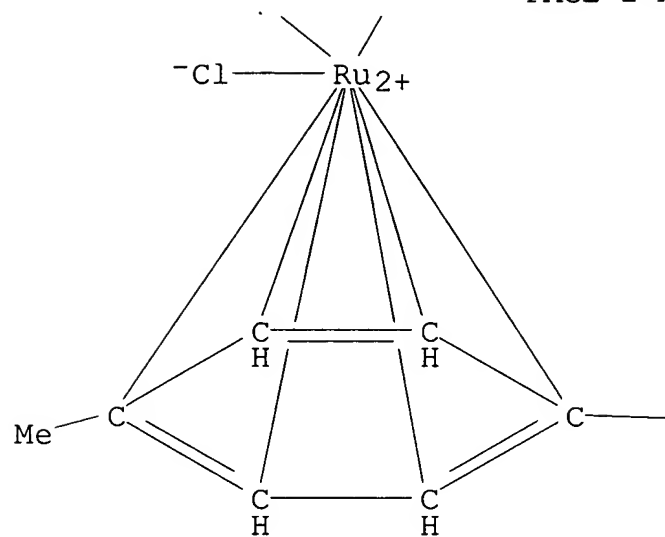


Cl^-

PAGE 1-B

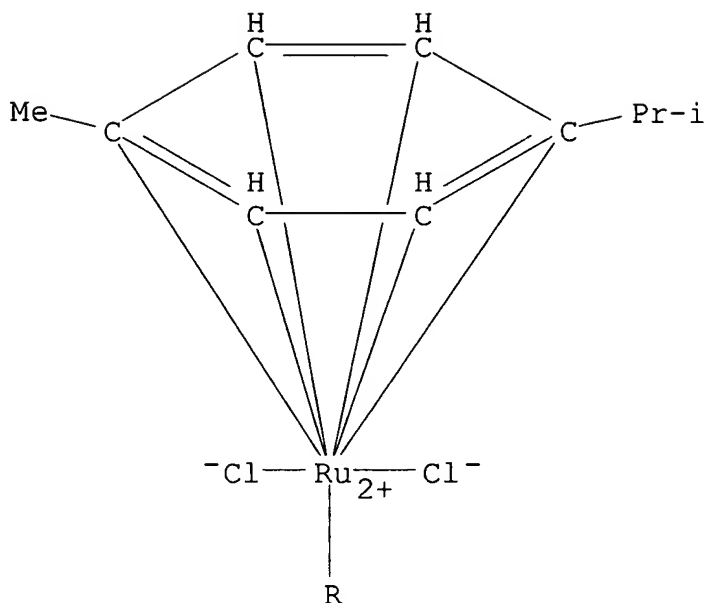


PAGE 2-A



PAGE 2-B

Pr-i



REFERENCE COUNT:
AVAILABLE FOR THIS

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 RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

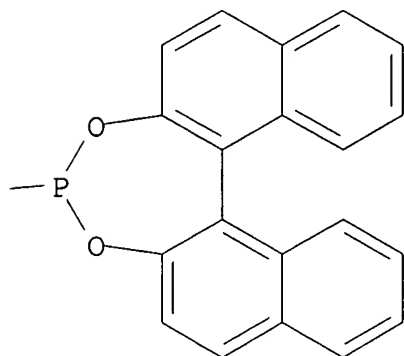
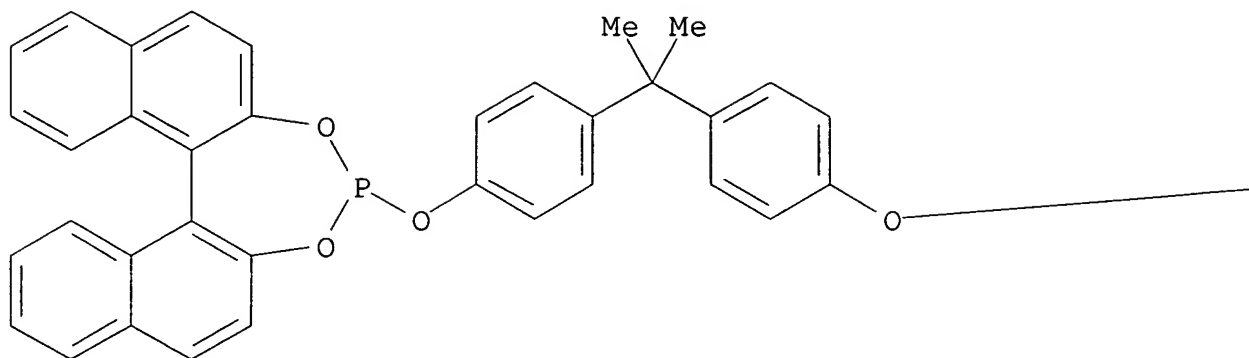
L8 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:30484 CAPLUS
DOCUMENT NUMBER: 134:231119
TITLE: Formation of metallamacrocycles from
palladium(II), platinum(II) and copper(I) complexes and the
ditopic ligands [{p-(Ph₂PO)C₆H₄}₂CMe₂],
[{2-Ph₂PO-3,5-(Me₃C)₂C₆H₂}₂S], [{p-[(C₁₀H₆O)₂PO]C₆H₄}₂CMe₂]
AUTHOR(S): Arena, Carmela Grazia; Drommi, Dario;
Faraone, Felice; Graiff, Claudia; Tiripicchio, Antonio
CORPORATE SOURCE: Dipartimento di Chimica Inorganica, Chimica
Analitica e Chimica Fisica-Universita di Messina,
Messina, 98166, Italy
SOURCE: European Journal of Inorganic Chemistry
(2001), (1), 247-255
CODEN: EJICFO; ISSN: 1434-1948
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:231119

AB The new ligands bis(phosphinito) $[[2\text{-Ph}_2\text{PO-3,5-(Me}_3\text{C)}_2\text{C}_6\text{H}_2\text{)}_2\text{S}]$ (4) and chiral bis(phosphite) $[[p\text{-}[(\text{C}_{10}\text{H}_6\text{O)}_2\text{PO}]\text{C}_6\text{H}_4\text{)}_2\text{CMe}_2]$ (5) were synthesized and their reactions with Pd(II), Pt(II), Cu(I) substrates were studied.

$[[\text{P-(Ph}_2\text{PO)C}_6\text{H}_4\text{)}_2\text{CMe}_2]$ (3), previously reported by the authors, was also used in the same reactions. Ligands 3 and 5 formed 28-membered metallamacrocycles while ligand 4 afforded the analogous compound only in the reaction with the Cu(I) substrate. In the reaction of 3 with $[\text{Pd(PhCN)}_2\text{Cl}_2]$ the metallamacrocycle $[\text{PdCl}_2(\mu\text{-3})]_2$ (6) or the oligomer $[\text{Pd}_2\text{Cl}_4(\mu\text{-3})]_n$ (7) were formed, depending on the molar ratio used. The reaction of 3 with $[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)\text{Cl}]_2$ afforded $\{[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)\text{Cl}]_2(\mu\text{-3})\}$ (8). The allylpalladium macrocycle $[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)(\mu\text{-3})]_2[\text{OTf}]_2$ (9) was obtained by treating a solution of 8 in THF with AgCF_3SO_3 . The reactions of 3 with $[\text{Pt(COD)I}_2]$ or $[\text{Cu(NCCH}_3)_4]\text{BF}_4$ gave metallamacrocycles $[\text{PtI}_2(\mu\text{-3})]_2$ (10) and $[\text{Cu}_2(\mu\text{-3})_2][\text{BF}_4]_2 \cdot 2\text{MeCN}$ (11), resp. The structure of 10 was also elucidated by x-ray anal. Reactions of 4 with Pd(II) and Pt(II) complexes afforded a mixture of two very different compds. in almost an equimolar ratio. An x-ray anal. established that one is a mononuclear compound, formed by modification of the ligand 4, containing a P,S-chelate, $[\text{PdCl}_2\{[2\text{-Ph}_2\text{PO-3,5(Me}_3\text{C)}_2\text{C}_6\text{H}_2][3,5\text{-(Me}_3\text{C)}_2\text{C}_6\text{H}_2\text{OH)]S}\}]$ (12). The reaction between $[\text{Cu(NCCH}_3)_4]\text{BF}_4$ and 4 afforded the ionic metallamacrocycle $[\text{Cu}(\mu\text{-4})][\text{BF}_4]_2 \cdot 2\text{MeCN}$ (14). In compound 10, the size of the central cavity formed by the bridging ligand 3 was determined

IT 329360-57-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reactant for preparation of palladium/platinum phosphinitophenylethane derivative complexes)

RN 329360-57-8 CAPLUS
 CN Dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphopin, 4,4'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis-, (11bS,11'bS)-(9CI)
 (CA INDEX NAME)



REFERENCE COUNT:
AVAILABLE FOR THIS
RE FORMAT

23 THERE ARE 23 CITED REFERENCES
RECORD. ALL CITATIONS AVAILABLE IN THE

L8 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:102941 CAPLUS

DOCUMENT NUMBER: 128:155824

TITLE: Color stabilization of isocyanates with
2,6-tert-butyl-4-methylphenol

(ionol)-phosphite system

INVENTOR(S): Schieb, Thomas; Meier, Helmut-Martin; Ebert,
Wolfgang

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 10 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			

DE 19630903	A1	19980205	DE 1996-19630903
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19960801

PRIORITY APPLN. INFO.: DE 1996-19630903

19960801

AB Organic isocyanates, useful as components for the manufacture of polyurethanes,
are stabilized by blending with a mixture of ionol with ≥ 1 P compound

Thus, MDI containing 300 ppm ionol and 500 ppm
[4,2,6-Me(Me3C)2C6H2O]3P which
was kept for 20 wk at 5°, room temperature and 53° had Hazen color
number 5, 5 and 10, resp., vs. 15, 40 and >450 after 12 wk for MDI containing
300/500 ppm mixture of ionol and PhCH2OP(OEt)2.

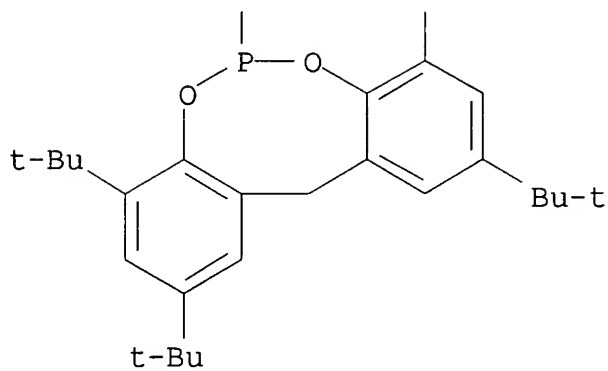
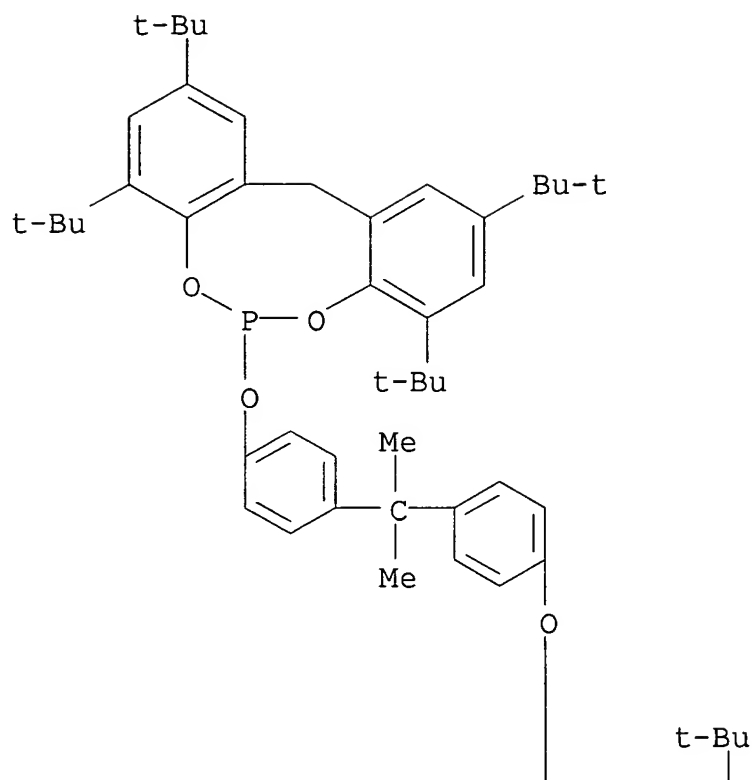
IT 172479-15-1

RL: NUU (Other use, unclassified); USES (Uses)
(ionol-phosphite system for color stabilization of isocyanates)

RN 172479-15-1 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX
NAME)



REFERENCE COUNT:
FOR THIS

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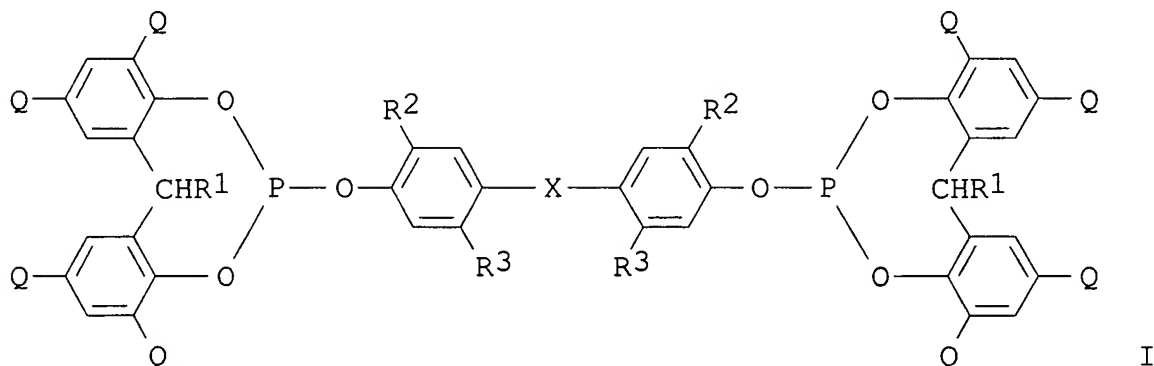
THERE ARE 1 CITED REFERENCES AVAILABLE
RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L8 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:433575 CAPLUS
DOCUMENT NUMBER: 127:51566

TITLE: Aromatic bisphosphite compounds and stabilized synthetic polymer compositions therewith
 INVENTOR(S): Haruna, Tohru; Takahashi, Masayuki; Tobita, Etsuo;
 PATENT ASSIGNEE(S): Hamada, Rieko
 SOURCE: Asahi Denka Kogyo Kabushiki Kaisha, Japan
 Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
EP 775723 19951127	A1	19970528	EP 1995-118618
EP 775723 R: BE, CH, DE, ES, FR, GB, LI, NL JP 08034877 19940722	B1 A2	19990217 19960206	JP 1994-191270
JP 3369743 ES 2128641 19951127	B2 T3	20030120 19990516	ES 1995-118618
PRIORITY APPLN. INFO.: 19940722			JP 1994-191270 A
19951127			EP 1995-118618 A
OTHER SOURCE(S): GI		MARPAT 127:51566	

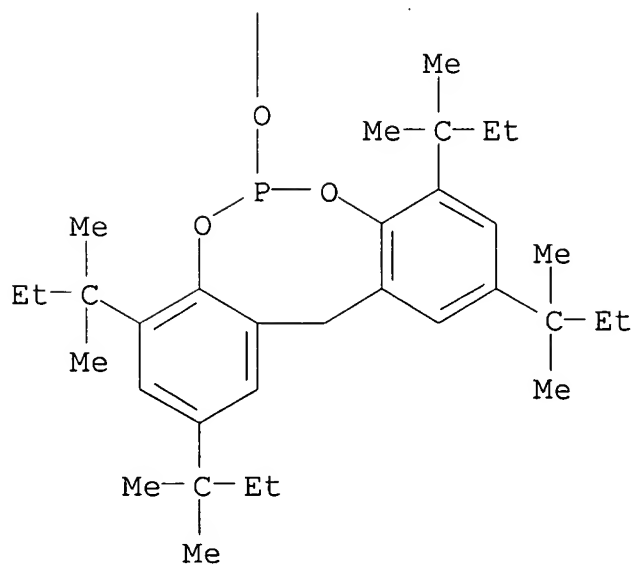
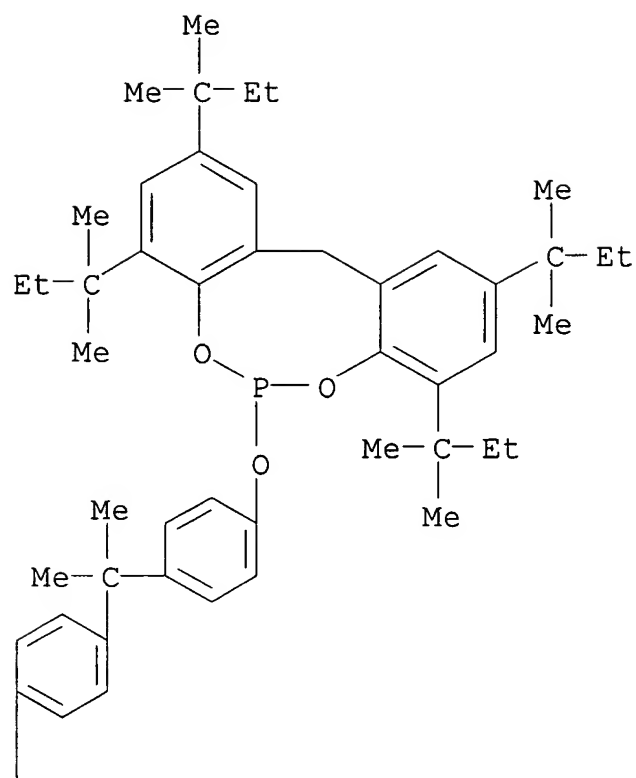


AB A phosphite compound I ($R_1 = \text{H, Me}$; $R_2, R_3 = \text{H, C1-5 alkyl}$; $Q = \text{t-C}_5\text{H}_{11}$; and
 $X = \text{C1-8 alkylidene}$) is prepared as a stabilizer (0.005-5 parts)
 in

synthetic polymer compns. (100 parts) to provide high heat- and hydrolysis-resistance, good processing stability and antiblooming property in the application in agricultural materials, paints and trim parts for automobiles, food packaging exposed to radiation, etc. (no data). Thus, 100 parts poly(vinyl chloride), 45 parts di-2-ethylhexyl phthalate, 0.3 parts I (X = C(CH₃)₂; R₁, R₂, R₃ = H) prepared from 2,2'-methylenebis(4,6-di-tert-amylphenol), bisphenol A and phosphorus trichloride, and additives were extruded to a sheet showing heat stability (Geer oven, at 190°) 160 min and weatherability 4600 h, vs. 60 and 2200, resp., for a sample without phosphite stabilizer.

IT 177324-40-2 177324-41-3 177324-42-4
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizer; aromatic phosphite compds. and stabilized synthetic resin compns. therewith)

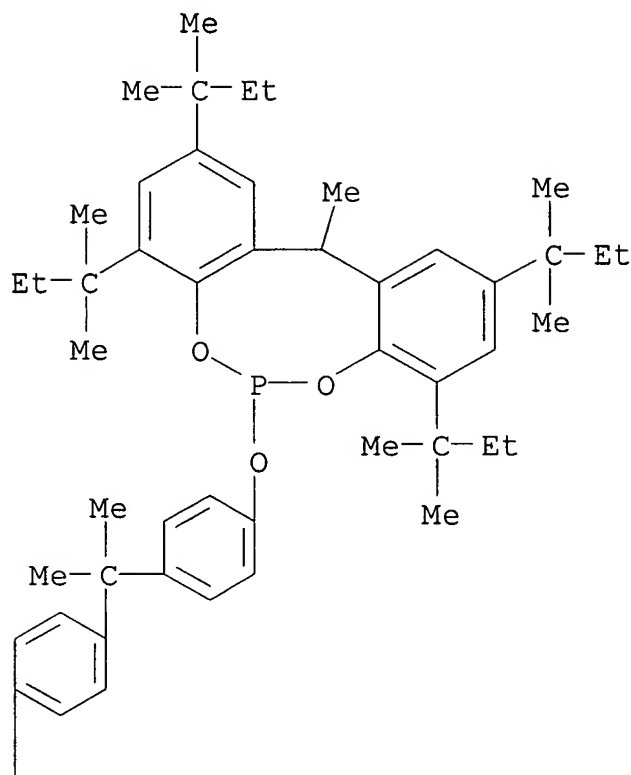
RN 177324-40-2 CAPLUS
CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)- (9CI)
(CA INDEX
NAME)

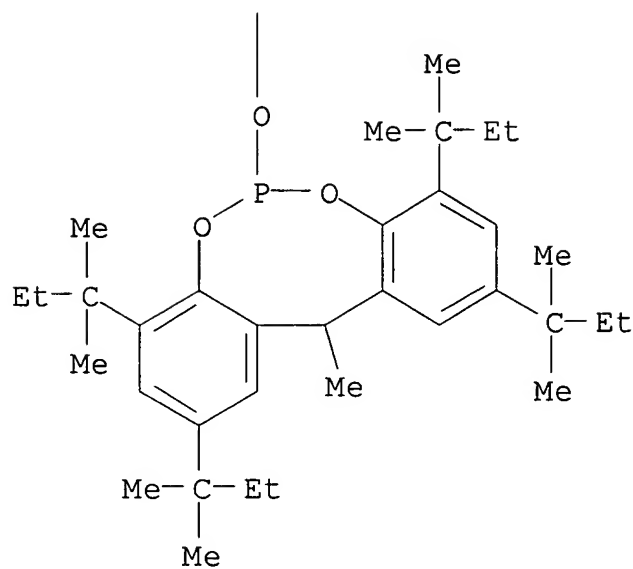


RN 177324-41-3 CAPLUS
 CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
 6,6'-[(1-methylethylidene)bis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)-12-methyl-
 (9CI)
 (CA INDEX NAME)

PAGE 1-A

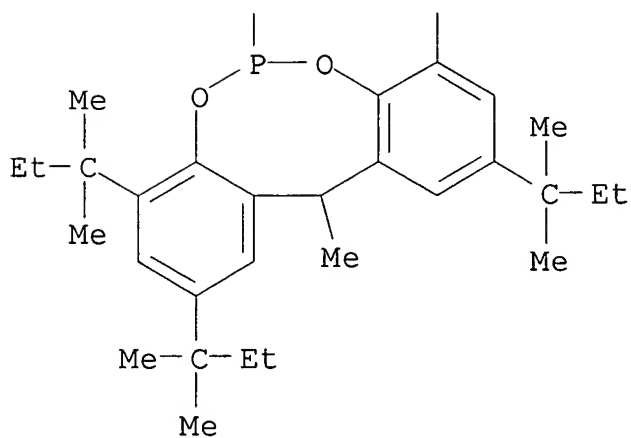
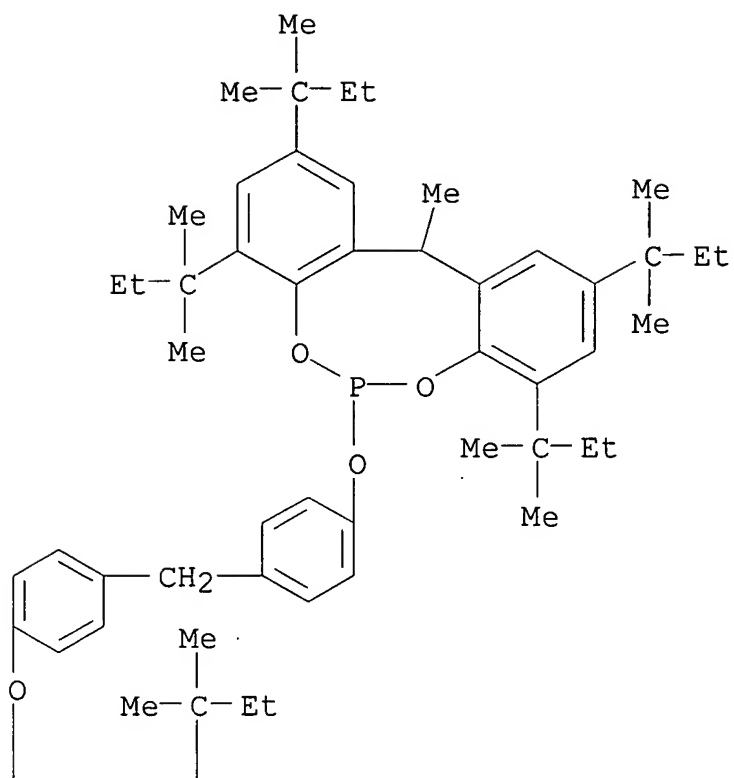




RN 177324-42-4 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[methylenebis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)-12-methyl- (9CI)

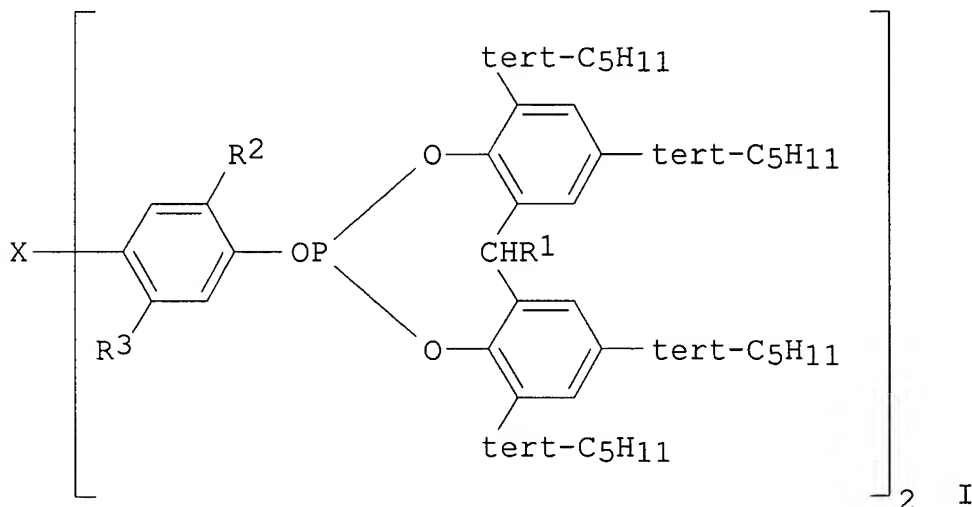
(CA INDEX NAME)



L8 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:318666 CAPLUS
 DOCUMENT NUMBER: 125:12400
 TITLE: Stabilized synthetic polymer compositions
 INVENTOR(S): Haruna, Tooru; Takahashi, Masayuki; Hida,
 Etsuo;

PATENT ASSIGNEE(S): Hamada, Rieko
 SOURCE: Asahi Denka Kogyo KK, Japan
 Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 08034877	A2	19960206	JP 1994-191270
19940722			
JP 3369743	B2	20030120	
EP 775723	A1	19970528	EP 1995-118618
19951127			
EP 775723	B1	19990217	
R: BE, CH, DE, ES, FR, GB, LI, NL			
PRIORITY APPLN. INFO.: 19940722			JP 1994-191270 A
OTHER SOURCE(S): GI	MARPAT 125:12400		



AB Title compns. contain 100 parts synthetic polymers and 0.005-5 parts phosphites I (R1 = H, Me; R2, R3 = H, C1-5 alkyl; X = C1-8 alkylidene). Thus, Stylac 200 100, Ca stearate 1.0, and I (R1 = Me, R2 = R3 = H, X = CMe2) 0.3 part were mixed, pelletized at 200°, and injection molded

at 230° into a test piece, which showed Izod impact strength retention 91.1% (20°) after 48 h at 135°.

IT 177324-40-2 177324-41-3 177324-42-4

RL: MOA (Modifier or additive use); USES (Uses)

(stabilizing agent; bisphosphite heat stabilizers for synthetic polymers)

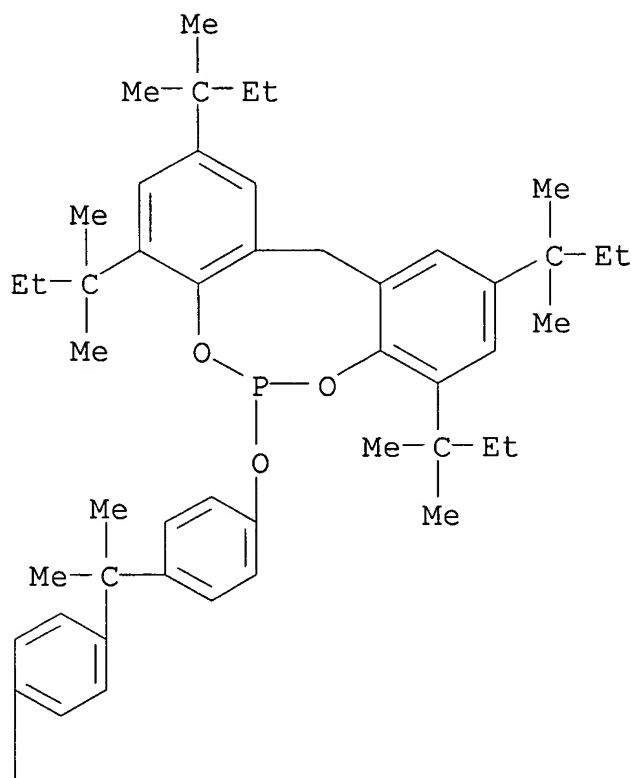
RN 177324-40-2 CAPLUS

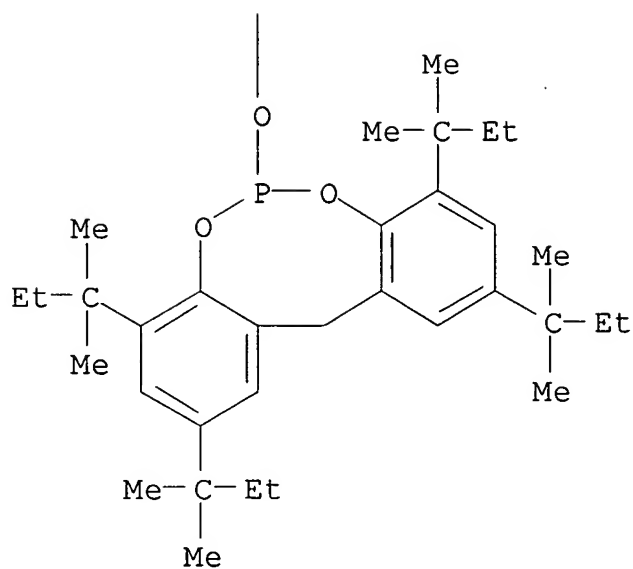
CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,

6,6'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)- (9CI)

(CA INDEX
NAME)

PAGE 1-A



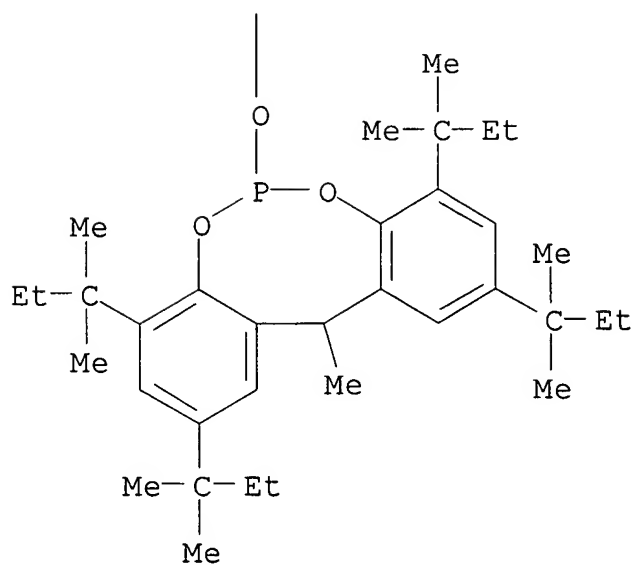
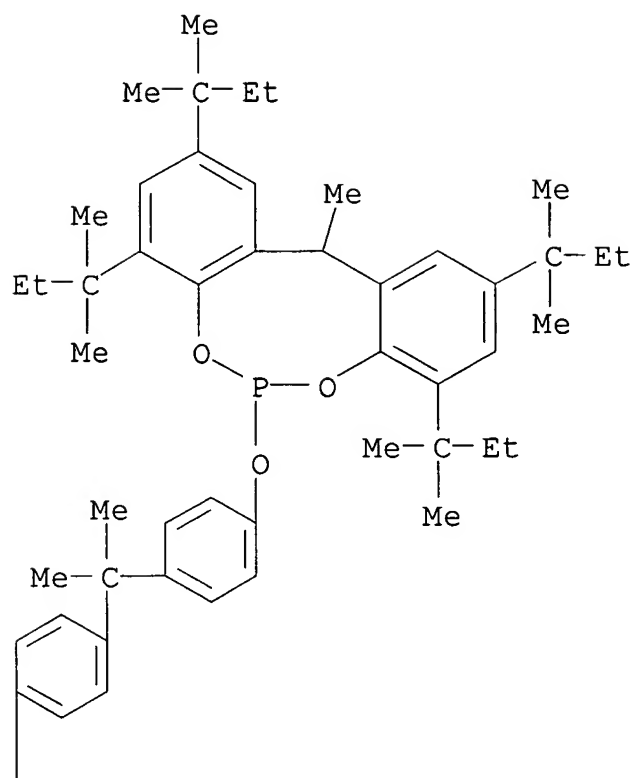


RN 177324-41-3 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[(1-methylethylidene)bis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)-12-methyl-
(9CI)

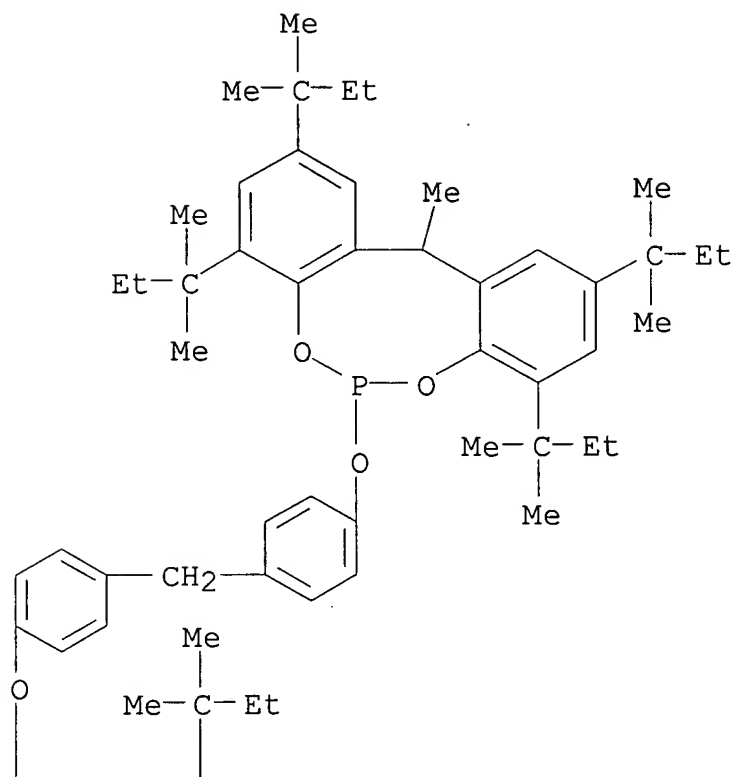
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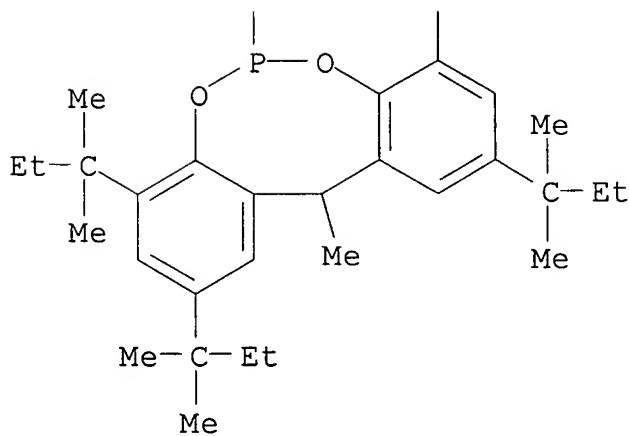
RN 177324-42-4 CAPLUS
 CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[methylenebis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylpropyl)-12-methyl-
(9CI)
(CA INDEX NAME)

PAGE 1-A

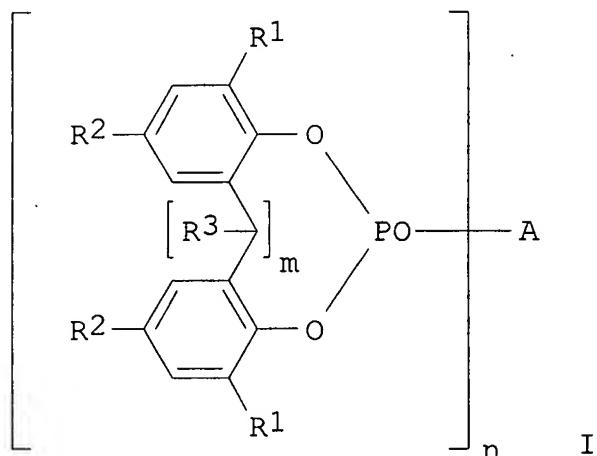


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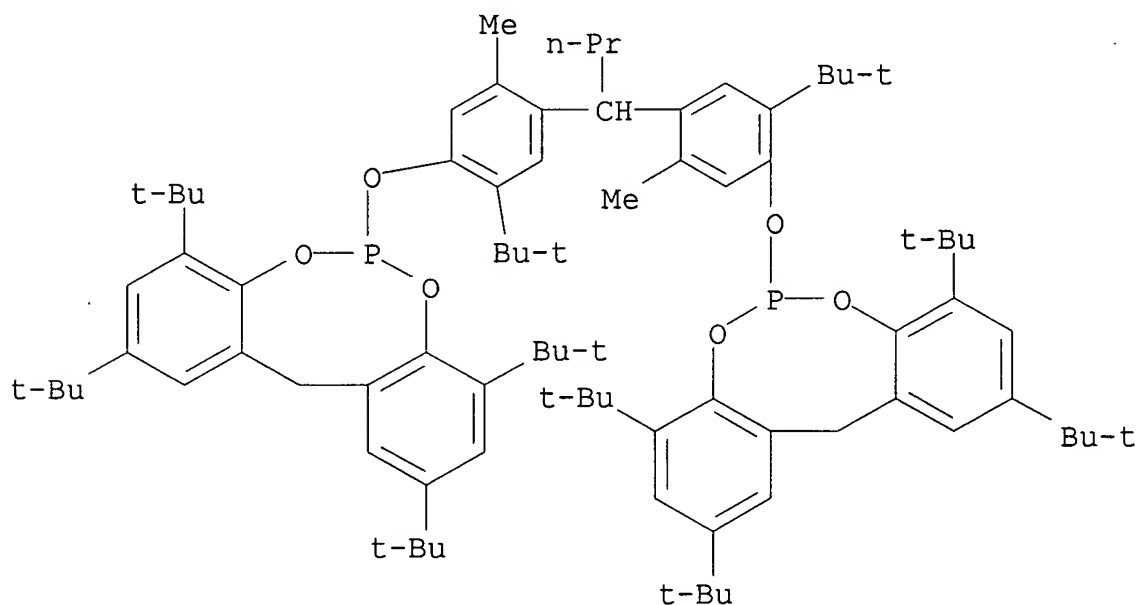
L8 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:938580 CAPLUS
 DOCUMENT NUMBER: 124:31278
 TITLE: Organophosphorus compounds-stabilized
 heat-resistant polymer compositions
 INVENTOR(S): Haruna, Tooru; Takahashi, Masayuki
 PATENT ASSIGNEE(S): Asahi Denka Kogyo KK, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 07233283	A2	19950905	JP 1994-49843
JP 3369708	B2	20030120	JP 1994-49843
PRIORITY APPLN. INFO.: JP 1994-49843			
OTHER SOURCE(S): MARPAT 124:31278			
GI			

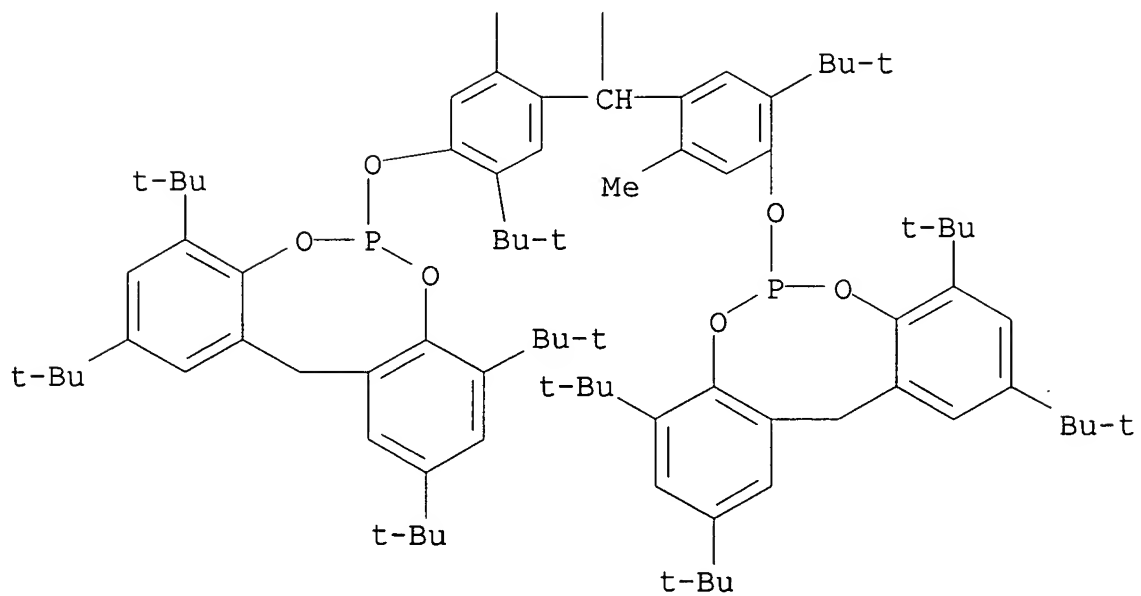
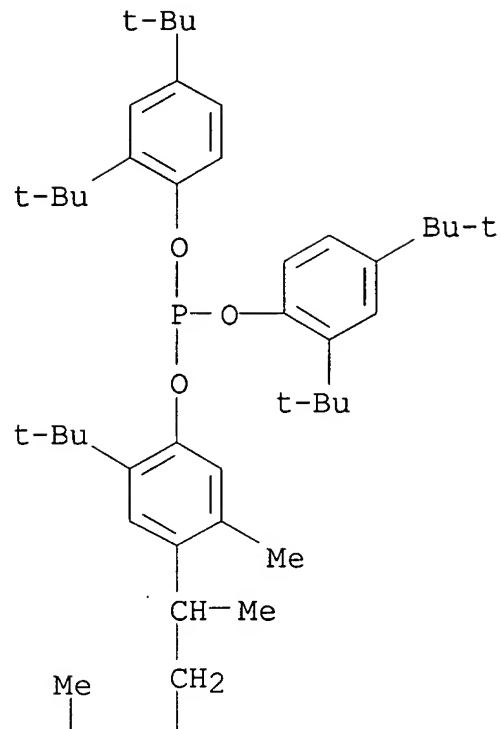


AB Title compns. contain organophosphorus compds. I (R1-2 = C1-8 alkyl; R3 =
 H, C1-8 alkyl; A = n-valent alc., phenol residue; n = 1-3; m =
 0, 1) and hydrotalcites. Thus, polypropylene containing
 tetrakis[methylene-3-(3',5'-di-

tert-butyl-4'-hydroxyphenyl)propionate]methane 0.1,
dilaurylthiodipropionic acid ester 0.2, I [R1-2 = tert-Bu, R3 =
H, A =
CH₂CH(CH₂Me) (CH₂)₃Me, m = 1, n = 1] 0.1, and DHT 4A 0.1 phr was
extruded,
pelletized, and injection molded to give test pieces showing good
yellowing prevention.
IT 171913-94-3 171913-95-4
RL: MOA (Modifier or additive use); TEM (Technical or engineered
material
use); USES (Uses)
(heat stabilizers; organophosphorus compds.-stabilized
heat-resistant
polymer compns.)
RN 171913-94-3 CAPLUS
CN 12H-Dibenzo[d, g] [1, 3, 2]dioxaphosphocin,
6, 6'-[butylidenebis[[2-(1,1-
dimethylethyl)-5-methyl-4,1-phenylene] (oxy)]]bis[2,4,8,10-tetrakis(1,1-
-
dimethylethyl)- (9CI) (CA INDEX NAME)



RN 171913-95-4 CAPLUS
CN Phosphorous acid,
4-[3,3-bis[5-(1,1-dimethylethyl)-2-methyl-4-[[2,4,8,10-
tetrakis(1,1-dimethylethyl)-12H-dibenzo[d, g] [1, 3, 2]dioxaphosphocin-6-
yl]oxy]phenyl]-1-methylpropyl]-2-(1,1-dimethylethyl)-5-methylphenyl
bis[2,4-bis(1,1-dimethylethyl)phenyl] ester (9CI) (CA INDEX
NAME)



L8 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:911887 CAPLUS

DOCUMENT NUMBER: 124:57752

TITLE: Aspects of stabilization with phosphorus
antioxidants

in polymers

AUTHOR(S): Haruna, T.

CORPORATE SOURCE: Asahi Denka Kogyo K. K., Saitama, Japan

SOURCE: Angewandte Makromolekulare Chemie (1995),
232, 119-31

CODEN: ANMCBO; ISSN: 0003-3146

PUBLISHER: Huethig & Wepf

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Phosphites (PTs) are effective processing stabilizers and the
performance

of PT antioxidants can be correlated to their chemical
structure. Cyclic PT

esters derived from 2,2'-methylenebis(2,4-di-tert-butylphenol)
and some

com. available PTs were comparatively studied. Decomposition of
cumene

hydroperoxide, melt flow of polypropylene (PP), and consumption
of

additives after multiple extrusions were investigated to
understand the

activity of PTs as process stabilizers in PP. PTs play an
important role

in process stabilization when used in combination with
sterically hindered

phenols, and the activity of PTs may be predicted by their
reactivity on

H₂O₂.

IT 172479-15-1 172479-16-2

RL: MOA (Modifier or additive use); USES (Uses)

(stabilization effects of phosphite antioxidants in extrusion
of

polypropylene)

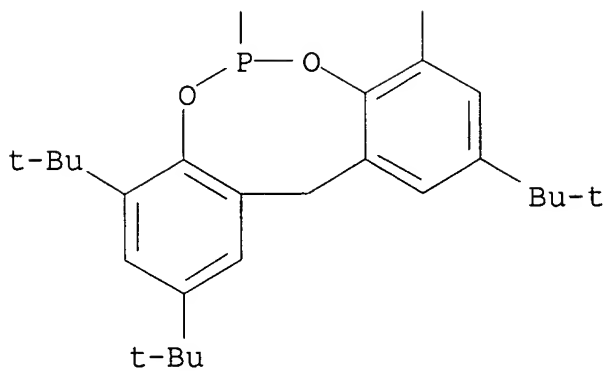
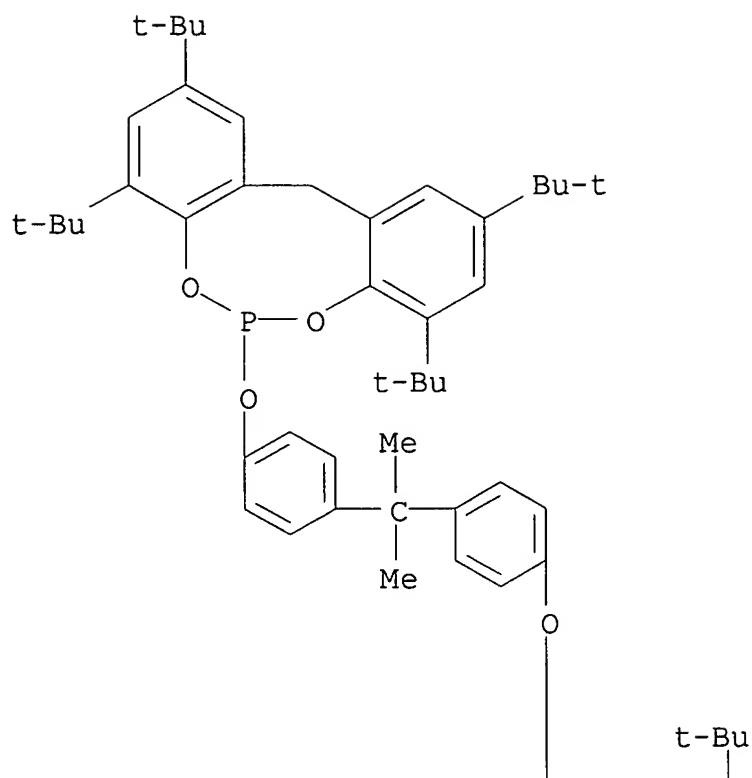
RN 172479-15-1 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[(1-methylethylidene)bis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)

(CA INDEX

NAME)

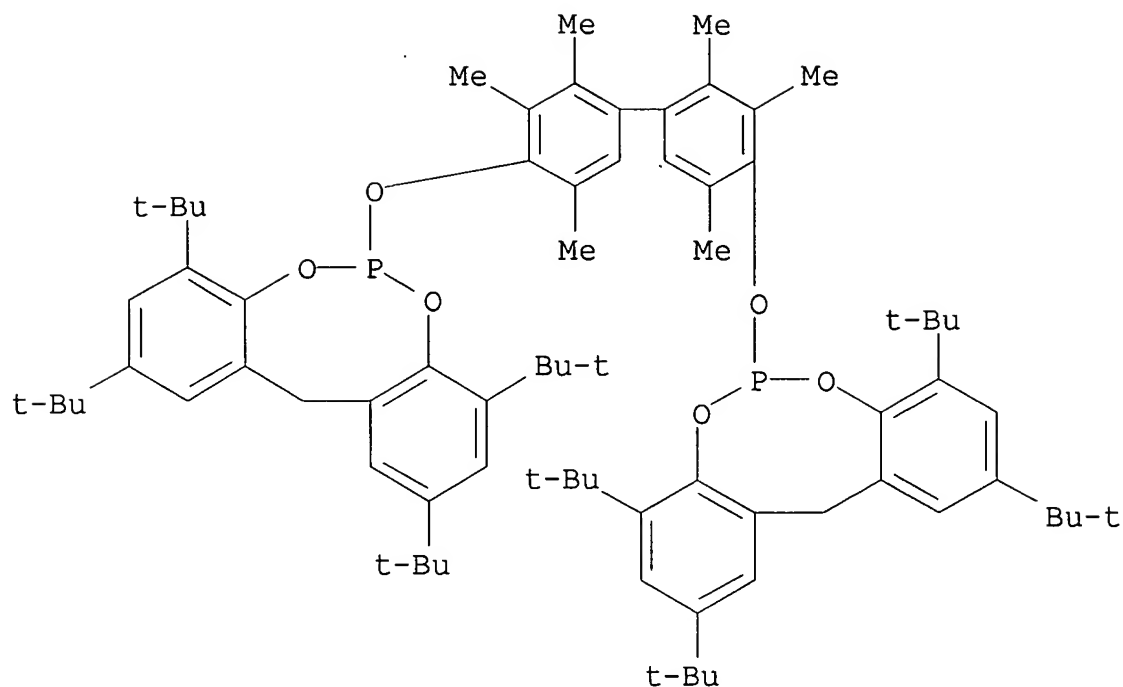


RN 172479-16-2 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[(2,2',3,3',5,5'-

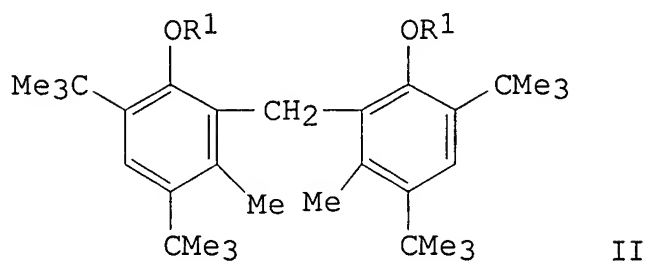
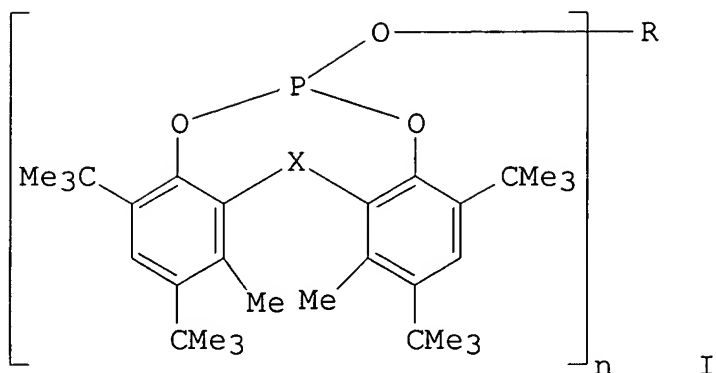
hexamethyl[1,1'-biphenyl]-4,4'-diyl)bis(oxy)]bis[2,4,8,10-tetrakis(1,1-

dimethylethyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:509263 CAPLUS
 DOCUMENT NUMBER: 121:109263
 TITLE: preparation of organic phosphates as polymer stabilizers
 INVENTOR(S): Hidaka, Yasuhiro; Akashi, Hiroyuki; Inoe, Takeshi;
 PATENT ASSIGNEE(S): Ike, Tetsuji; Horie, Matsuichi
 Japan Yoshitomi Pharmaceutical Industries, Ltd.,
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 05331180	A2	19931214	JP 1992-162113
19920527	B2	20001225	
JP 3120574			
PRIORITY APPLN. INFO.: 19920527			JP 1992-162113
OTHER SOURCE(S): GI		MARPAT 121:109263	



AB Organic phosphates [I; R = alkyl, alkenyl, alkynyl, (substituted) aryl, cycloalkyl, alkylene, alkenylene, arylene, etc.; X = C1-6 alkylene, O, S, SO, SO₂; n = 1, 2] are prepared PCl₃ was added dropwise to a solution of phenol derivative II (R₁ = H) and Et₃N in pyridine at < 20° and the mixture was heated at 90-100° to give diester II (R₁R₁ = PCl), which was treated with MeOH and Et₃N in toluene at 90-100° to give I (R = Me, X = CH₂, n = 1). Polypropylene containing I as additives showed much improved yellow index and melt index.

IT 155332-94-8P 155332-95-9P 155332-96-0P
155332-97-1P

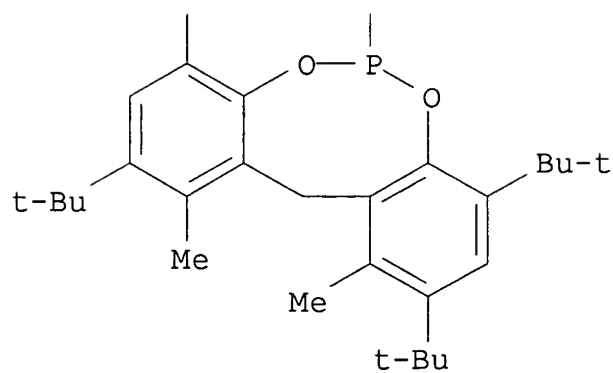
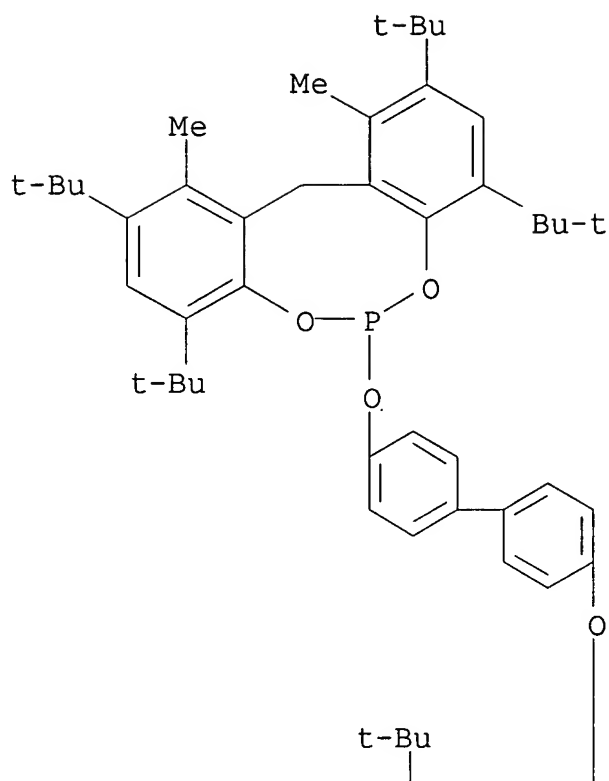
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as polymer stabilizer)

RN 155332-94-8 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[[1,1'-biphenyl]-4,4'-

diylbis(oxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-1,11-dimethyl-
(9CI)

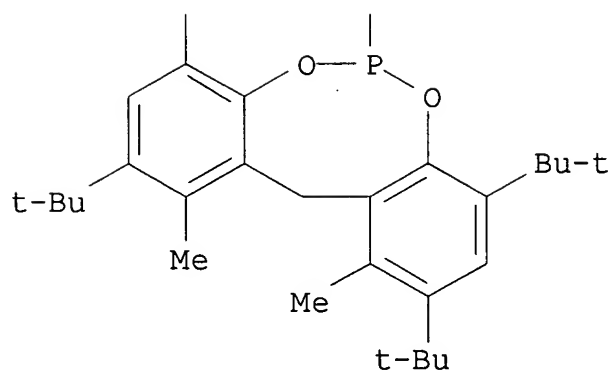
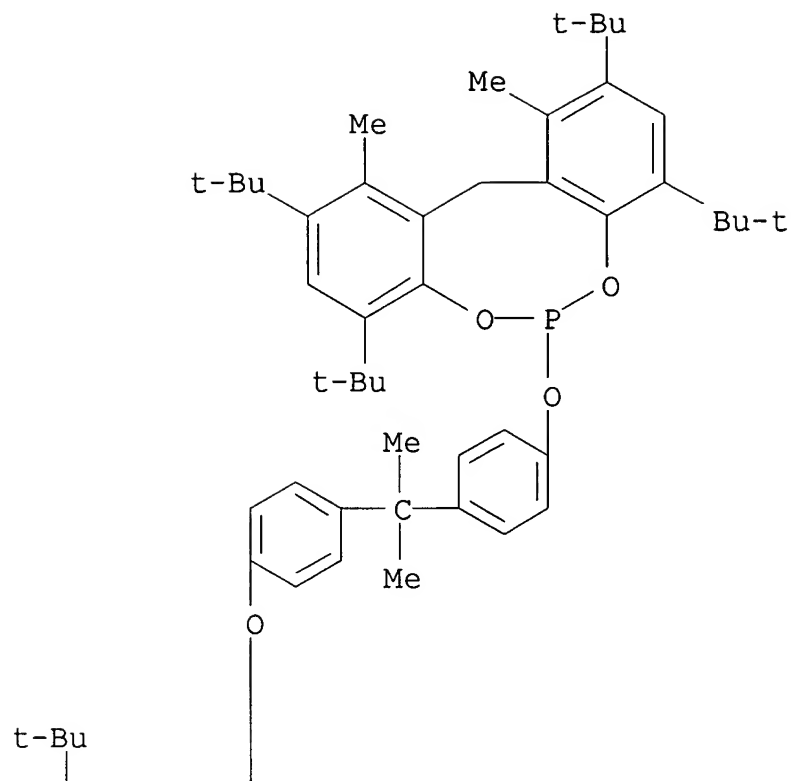
(CA INDEX NAME)



RN 155332-95-9 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6'-[(1-methylethylidene)bis(4,1-

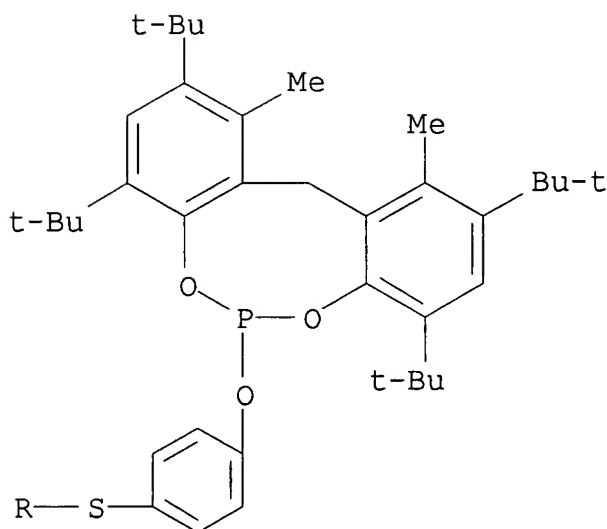
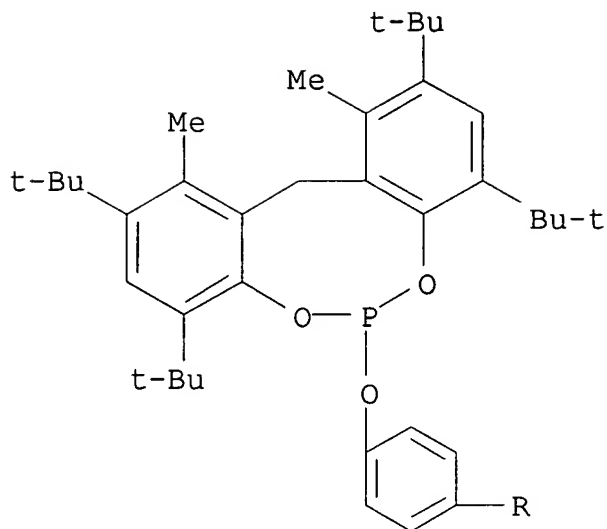
phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-1,11-dimethyl-
(9CI) (CA INDEX NAME)



RN 155332-96-0 CAPLUS

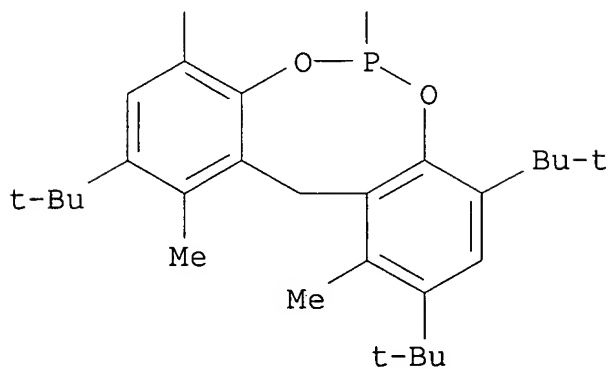
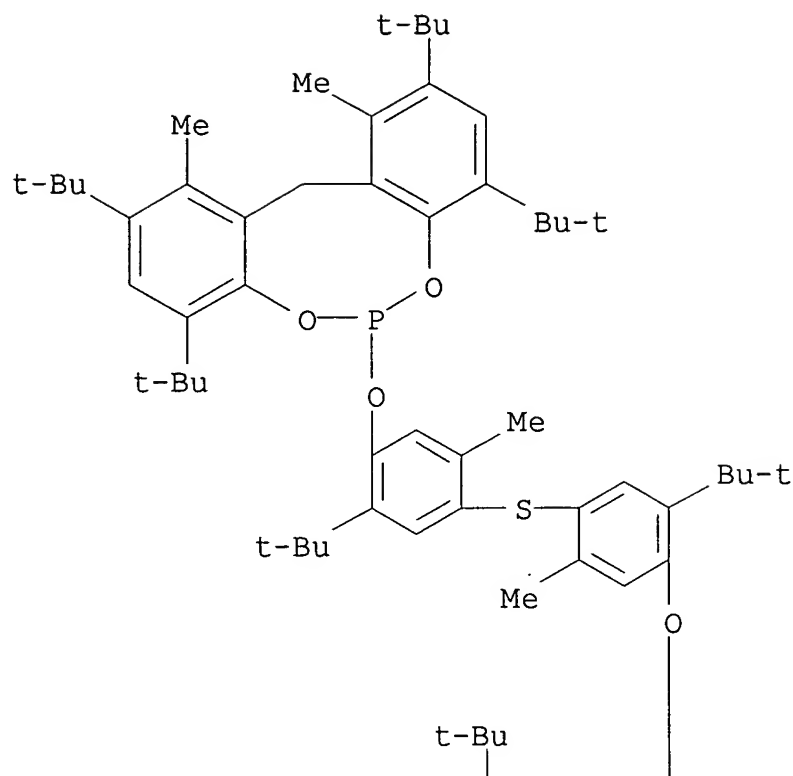
CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[thiobis(4,1-

phenyleneoxy)]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-1,11-dimethyl-
(9CI) (CA INDEX NAME)



RN 155332-97-1 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-1,11-dimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:148749 CAPLUS

DOCUMENT NUMBER: 118:148749

TITLE: Discoloration prevention in manufacture of polyurethanes derived from oxime-blocked

isocyanates

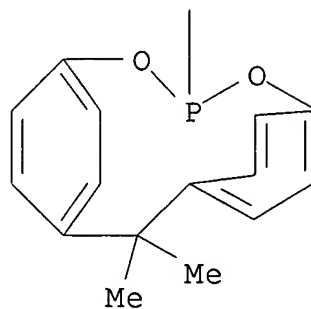
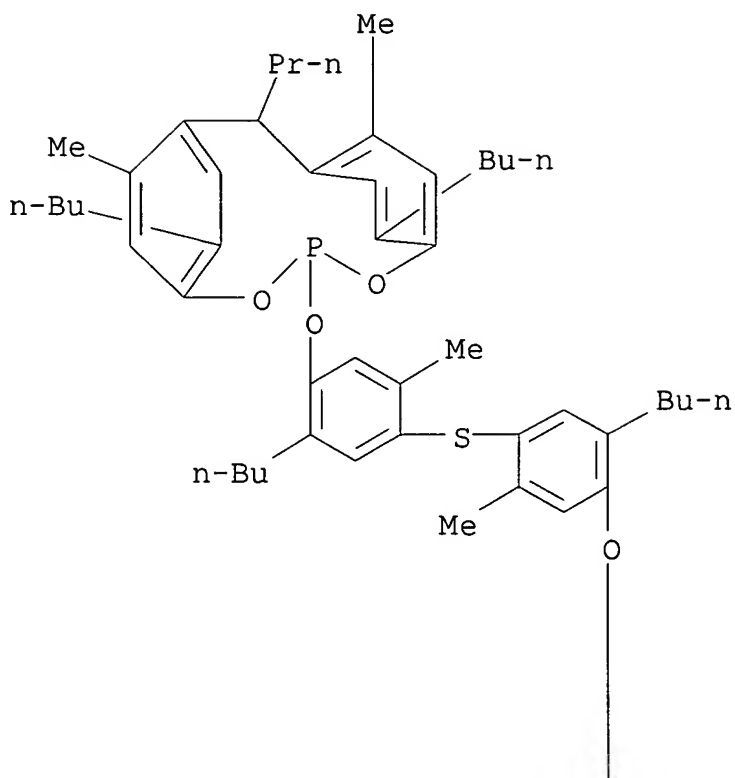
INVENTOR(S): Kogo, Yoshiyuki; Masuda, Kazuo; Imai, Satoshi

PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
JP 04236213 19910117	A2	19920825	JP 1991-3746
JP 2957716 19910117	B2	19991006	JP 1991-3746

PRIORITY APPLN. INFO.:
 19910117

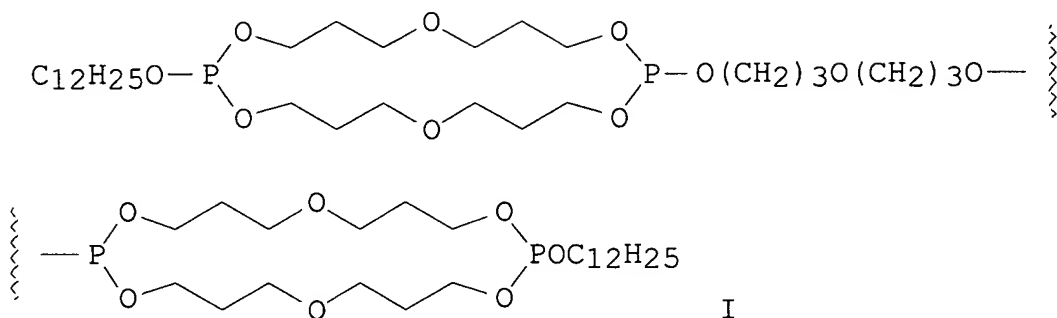
OTHER SOURCE(S): MARPAT 118:148749
 AB The title polymers useful as coating materials are prepared in the presence of organic phosphites, phosphates, organotin compds., carboxylic acid metal salts, thiocarbamic acid metal salts, and/or complexes of metals and diketone compds. to prevent yellowing caused by oximes. Thus, a composition, containing hexamethylene diisocyanate MEK oxime (Desmodur BL 3175) 37.5, polyester-polyol (Desmophen 670) 39.5, xylene 30, and P(OC10H21)3 (I) 0.7 part, had yellowing index 8.1 after heating at 100° for 5 h, vs. 16.7, using thiobisphenol instead of I.
 IT 146397-04-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (heat stabilizers, in manufacture of polyurethanes derived from oxime-blocked isocyanates)
 RN 146397-04-8 CAPLUS
 CN 7,9-Dioxa-8-phosphatricyclo[8.2.2.23,6]hexadeca-3,5,10,12,13,15-hexaene, 11,15-dibutyl-8-[2-butyl-4-[[5-butyl-4-[(2,2-diethyl-7,9-dioxa-8-phosphatricyclo[8.2.2.23,6]hexadeca-3,5,10,12,13,15-hexaen-8-yl)oxy]-2-methylphenyl]thio]-5-methylphenoxy]-4,13-dimethyl-2-propyl-
 (9CI) (CA
 INDEX NAME)



L8 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:592674 CAPLUS
 DOCUMENT NUMBER: 113:192674
 TITLE: Discoloration-resistant resin compositions
 INVENTOR(S): Kagino, Naoko; Nakano, Hitomi; Tsujimoto,
 Hideo;
 PATENT ASSIGNEE(S): Nakashita, Mitoku; Fujita, Kotaro
 Sakai Chemical Industry Co., Ltd., Sakai,
 Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 01170656	A2	19890705	JP 1987-330536
19871226			
JP 07091416	B4	19951004	
PRIORITY APPLN. INFO.: 19871226			JP 1987-330536
GI			



AB The title compns. with excellent heat resistance and weatherability contain polyphosphites prepared from (A) alc. mixts. containing 1 mol part monools and ≥ 1 mol part diols or triols and (B) an equivalent amount of $\text{P}(\text{OPh})_3$ or PCl_3 . Thus, PVC 100, DOP 50, epoxidized soybean oil 2, Ba stearate 0.4, Zn stearate 0.2, and polyphosphite I 0.5 part were kneaded to give a 0.4-mm sheet showing improved heat resistance, transparency, discoloration resistance, and weatherability compared to the sheet containing $\text{P}(\text{OPh})_3$ instead of I.

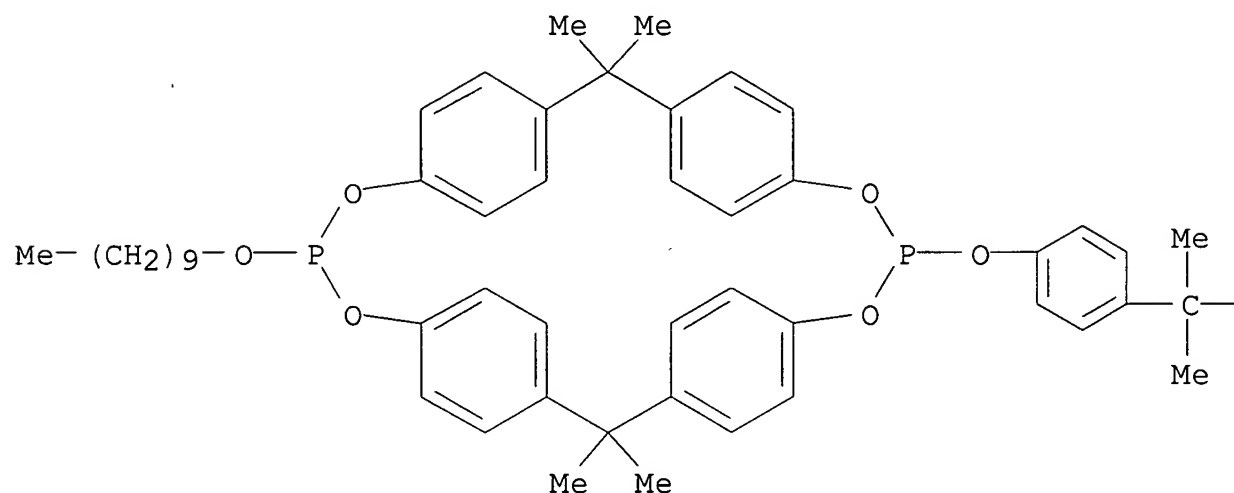
IT **124899-71-4**
 RL: USES (Uses)
 (heat and light stabilizers, for resins)

RN 124899-71-4 CAPLUS

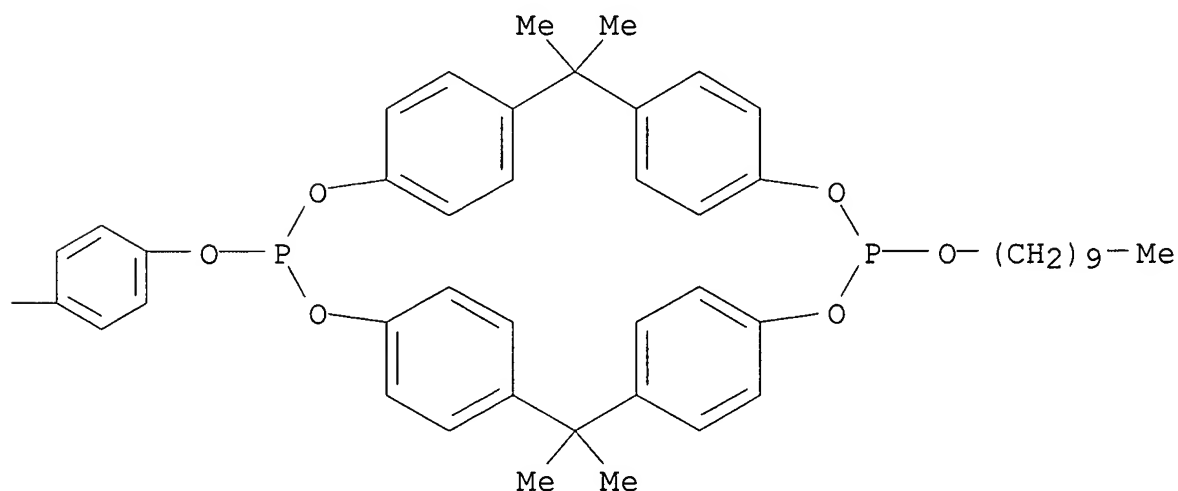
CN
 7,9,19,21-Tetraoxa-8,20-diphosphapentacyclo[20.2.2.23,6.210,13.215,18]
 dotr

iaconta-3,5,10,12,15,17,22,24,25,27,29,31-dodecaene, 8,8'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[20-(decyloxy)-2,2,14,14-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L8 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:21806 CAPLUS
 DOCUMENT NUMBER: 112:21806
 TITLE: Heat- and light-resistant synthetic resin
 compositions containing phosphite stabilizers

INVENTOR(S): Nishikawa, Kazunori; Kono, Toshinori
 PATENT ASSIGNEE(S): Adeka Argus Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 01121368	A2	19890515	JP 1987-280473
19871106			
PRIORITY APPLN. INFO.: 19871106			JP 1987-280473
OTHER SOURCE(S): GI		MARPAT 112:21806	

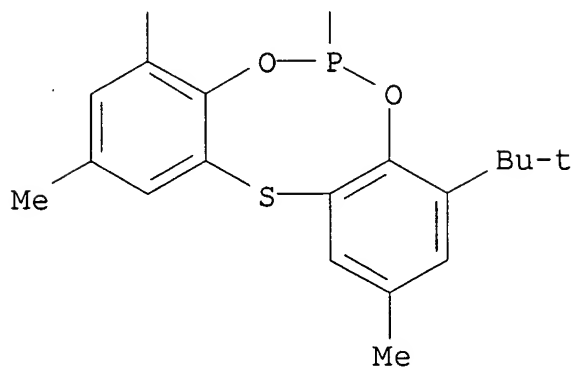
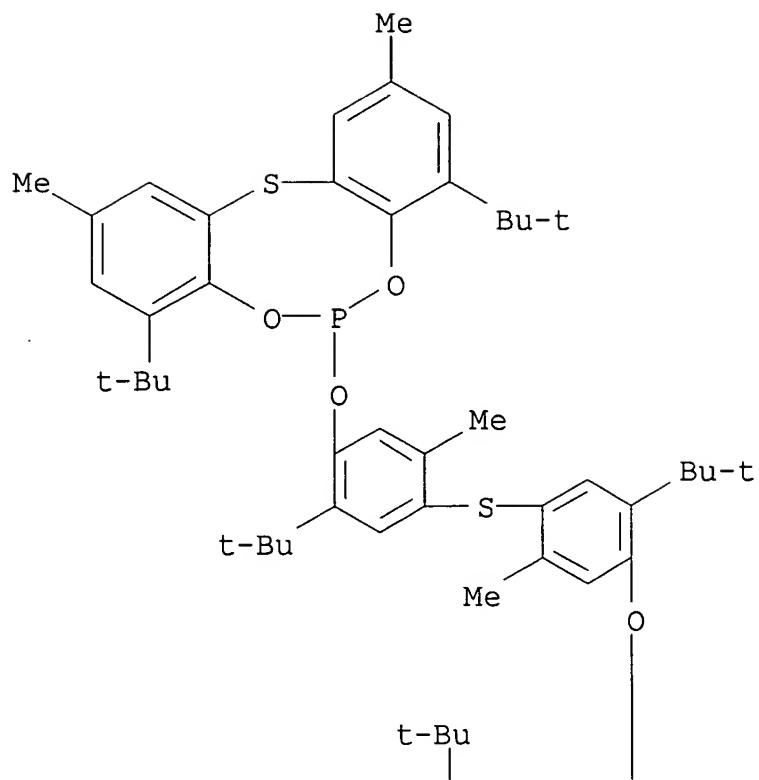
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compns. contain 100 parts synthetic resins and 0.001-5 parts phosphites I (A = S, CH₂SCH₂; B = H, phosphite group Q; R₁, R₃ = alkyl; R₂, R₄ = H, alkyl). Thus, polypropylene 100, Ca stearate 0.05, pentaerythritol tetrakis[di(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] 0.1, and phosphite II 0.1 part were mixed, kneaded at 180° for 5 min, and press molded at 180° for 5 min to give test pieces showing yellowing degree 8.7% initially and 12.9% after 72 h in a Geer oven, vs. 16.5 and 20.2, resp., for tri[4,4'-thiobis(2-tert-butyl-5-methylphenol)] phosphite in place of II.

IT 124347-44-0 124347-45-1 124347-47-3
 124347-48-4 124361-88-2
 RL: USES (Uses)
 (heat and light stabilizers, for molded plastics)

RN 124347-44-0 CAPLUS

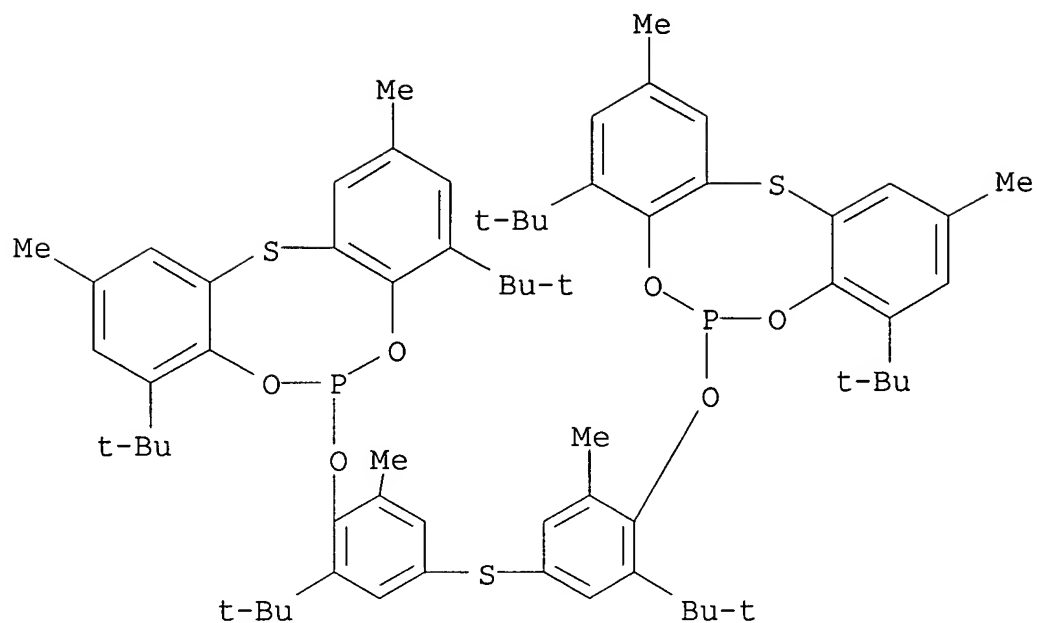
CN Dibenzo[d,g][1,3,6,2]dioxathiaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-dimethyl- (9CI) (CA INDEX NAME)]



RN 124347-45-1 CAPLUS

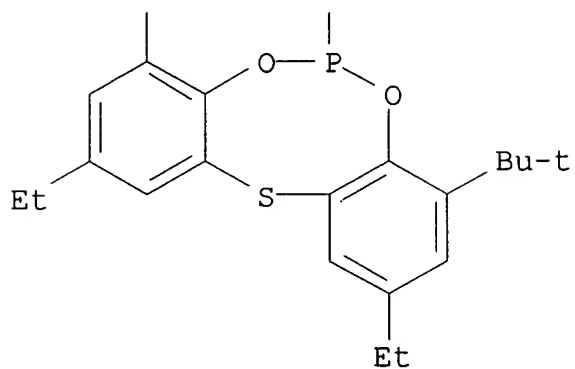
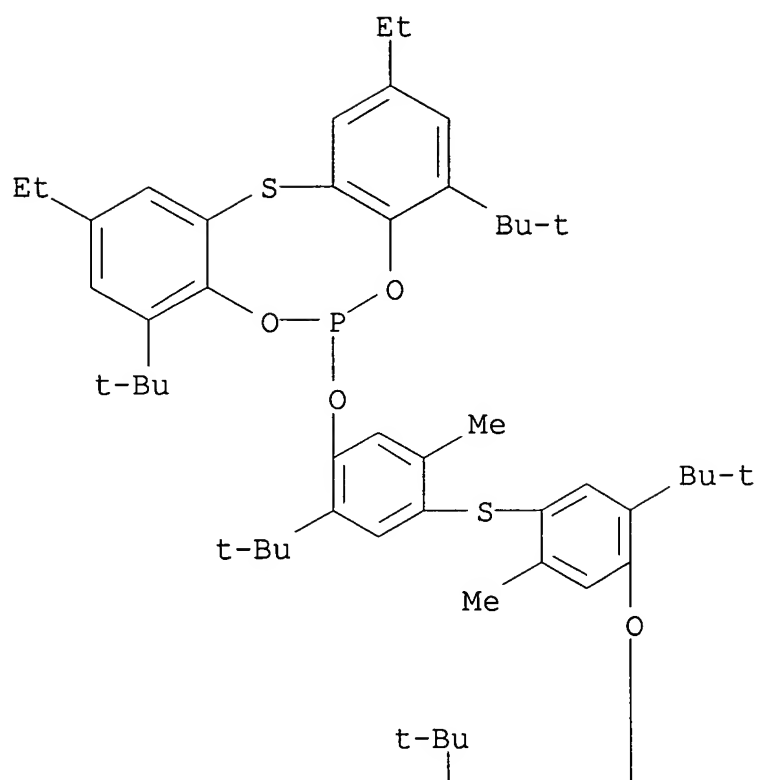
CN Dibenzo[d,g][1,3,6,2]dioxathiaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-6-methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-

2,10-dimethyl- (9CI) (CA INDEX NAME)

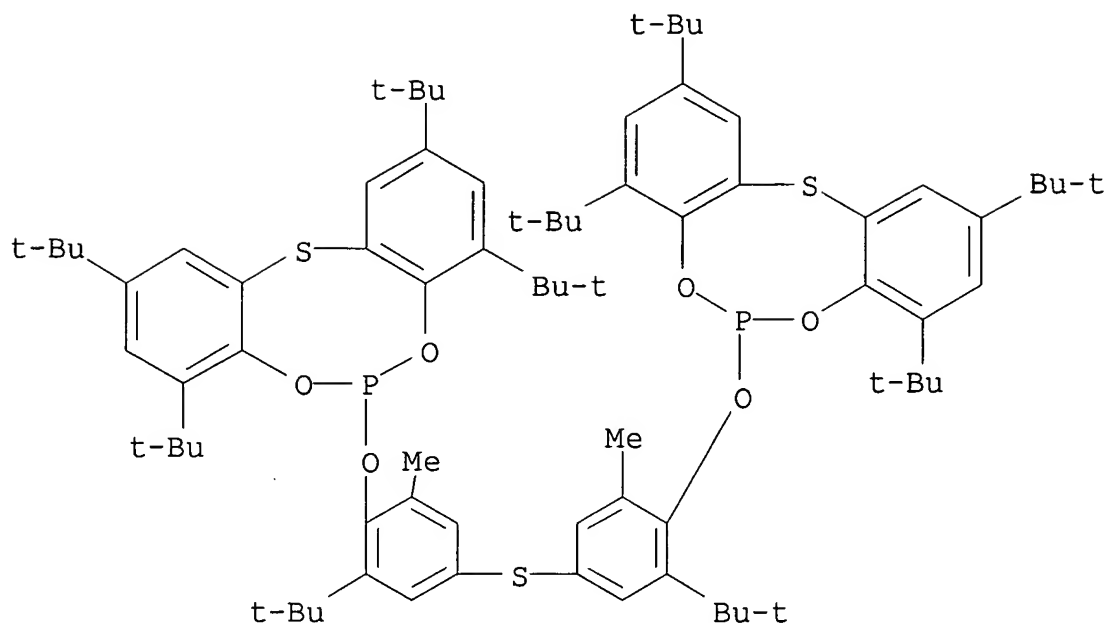


RN 124347-47-3 CAPLUS

CN Dibenzo[d,g][1,3,6,2]dioxathiaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-diethyl- (9CI) (CA INDEX NAME)



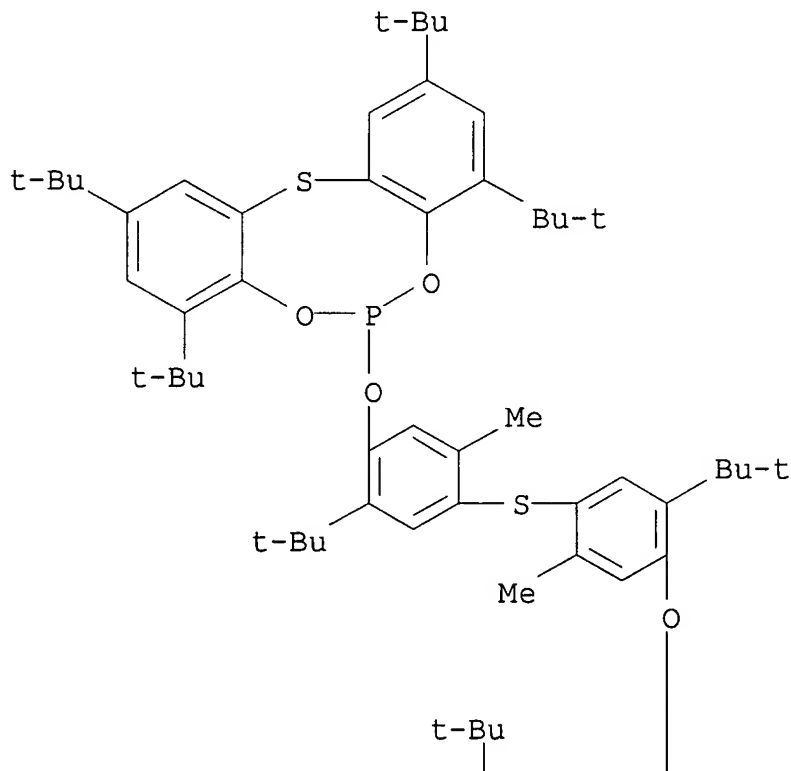
RN 124347-48-4 CAPLUS
 CN Dibenzo[d,g][1,3,6,2]dioxathiaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-6-methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

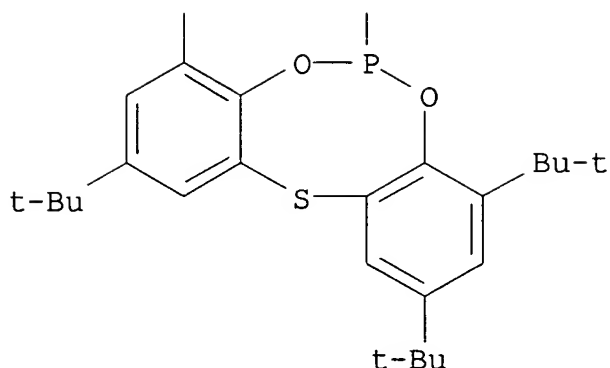


RN 124361-88-2 CAPLUS

CN Dibenzo[d,g][1,3,6,2]dioxathiaphosphocin, 6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

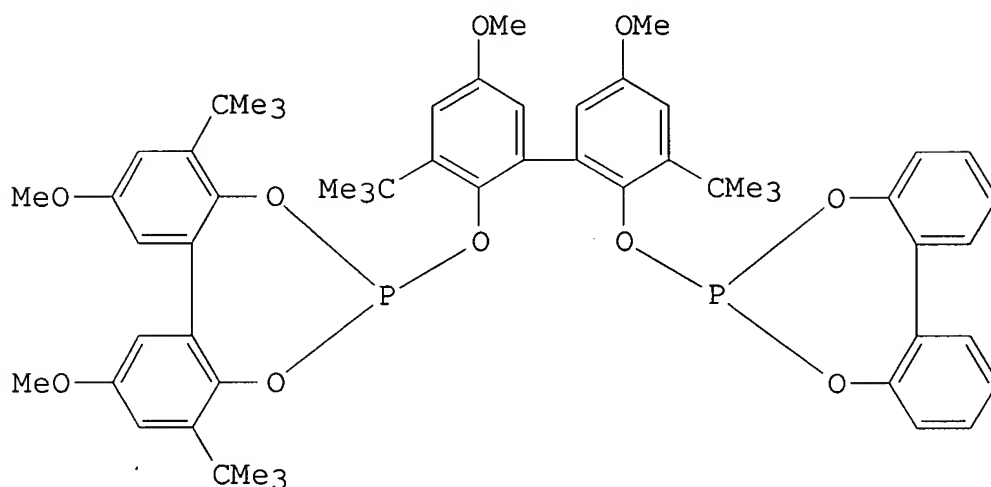
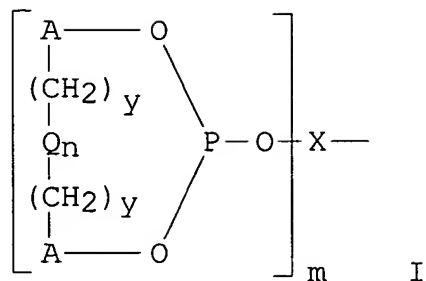




L8 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1989:517287 CAPLUS
 DOCUMENT NUMBER: 111:117287
 TITLE: Homogeneous rhodium carbonyl
 compound-phosphite ligand catalysts and process for olefin
 hydroformylation
 INVENTOR(S): Billig, Ernst; Abatjoglou, Anthony G.;
 Bryant, David
 PATENT ASSIGNEE(S): R.
 SOURCE: Union Carbide Corp., USA
 U.S., 27 pp. Cont.-in-part of U.S. 4,668,651.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 4769498	A	19880906	US 1987-12329
19870209			
US 4668651	A	19870526	US 1985-772859
19850905			
CA 1281704	A1	19910319	CA 1986-516846
19860826			
DK 8604234	A	19870306	DK 1986-4234
19860904			
FI 8603570	A	19870306	FI 1986-3570
19860904			
FI 88916	B	19930415	
FI 88916	C	19930726	

NO 8603546	A	19870306	NO 1986-3546	
19860904				
NO 167652	B	19910819		
NO 167652	C	19911127		
CN 86106811	A	19870429	CN 1986-106811	
19860904				
CN 1007348	B	19900328		
ZA 8606728	A	19870429	ZA 1986-6728	
19860904				
BR 8604261	A	19870505	BR 1986-4261	
19860904				
JP 62116535	A2	19870528	JP 1986-206937	
19860904				
JP 04051531	B4	19920819		
ES 2001416	A6	19880516	ES 1986-1617	
19860904				
HU 46642	A2	19881128	HU 1986-3820	
19860904				
HU 204489	B	19920128		
IN 168034	A	19910126	IN 1986-MA713	
19860904				
PL 152601	B1	19910131	PL 1986-261286	
19860904				
CS 275462	B2	19920219	CS 1986-6430	
19860904				
CS 275474	B2	19920219	CS 1988-7490	
19860904				
AU 8662373	A1	19870312	AU 1986-62373	
19860905				
AU 597593	B2	19900607		
RU 2005713	C1	19940115	RU 1987-4028803	
19870106				
CN 1041761	A	19900502	CN 1989-107465	
19890919				
CN 1021202	B	19930616		
PRIORITY APPLN. INFO.:			US 1985-772859	A2
19850905			SU 1987-4028803	A
19870106				
OTHER SOURCE(S):		CASREACT 111:117287; MARPAT 111:117287		
GI				



II

AB Catalysts for the hydroformylation of C2-20 α -olefins and C4-20 internal olefins comprise Rh carbonyl compds. complexed with phosphite ligands I (A = C6-18 (un)substituted arylene; Q = C(R1)R2, O, S, NR3, Si(R4)R5, CO; R1, R2 = H, C1-12 alkyl, Ph, tolyl, anisyl; R3-R5 = H, Me; X = m-valent radical selected from alkylene, alkylene-oxy-alkylene, arylene, arylene-(CH2)yQn(CH2)y-arylene; such that arylene has a divalent definition; m = 2-6; n = y = 0,1]. 1-Butene was hydroformylated in the presence of a catalyst comprising Rh dicarbonyl acetylacetonate, phosphite II, and CO/H (1:2 molar ratio) at 70°/100 psi-absolute, producing n-valeraldehyde/2-methylbutyraldehyde in a 50.5:1 molar ratio at 5-20% 1-butene conversion.

IT 108793-42-6 108793-44-8
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, containing rhodium carbonyl compds., for hydroformylation of α - and internal olefins)

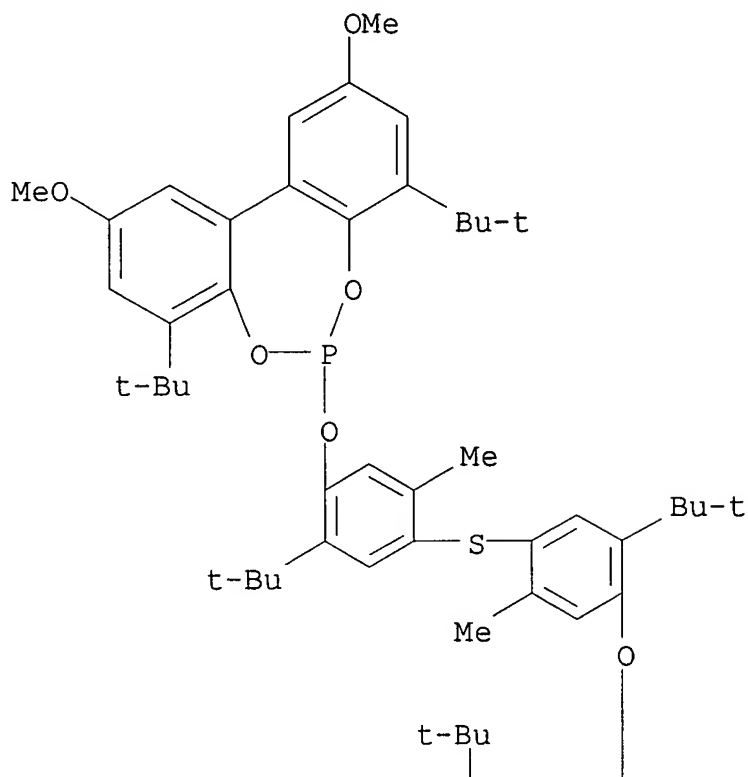
RN 108793-42-6 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

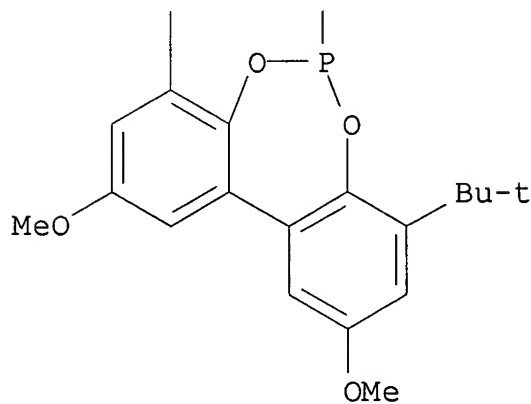
methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-dimethox
y-

(9CI) (CA INDEX NAME)

PAGE 1-A



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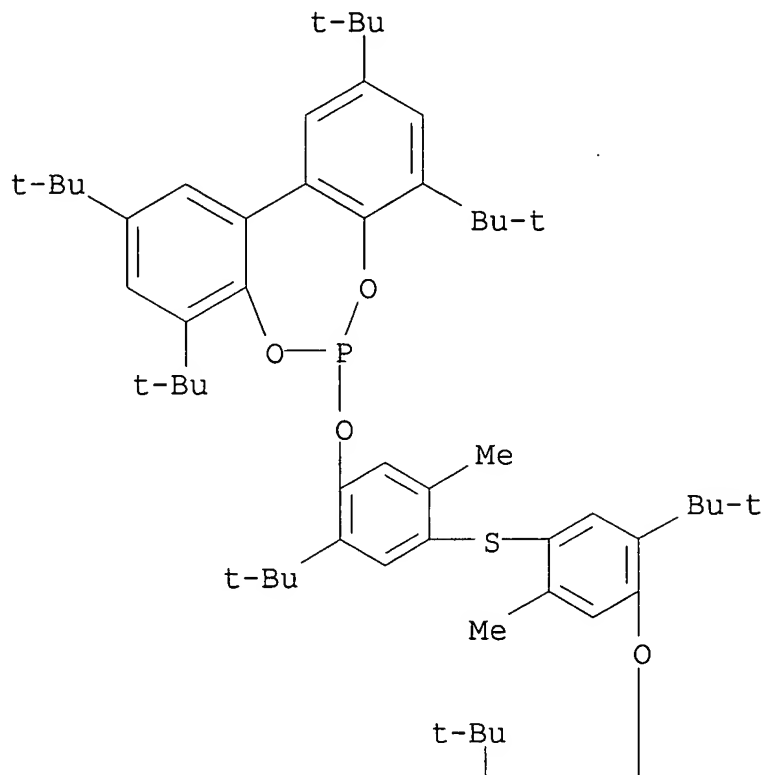
RN 108793-44-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

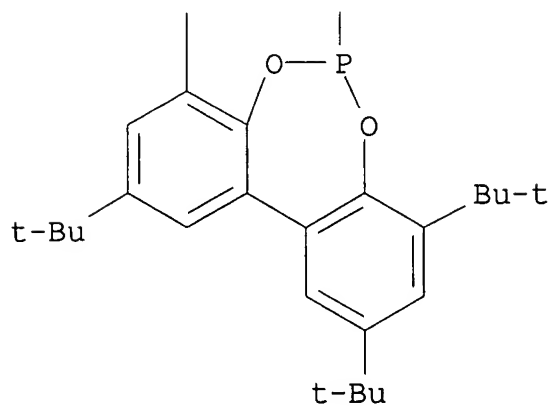
methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-
(9CI)

(CA INDEX NAME)

PAGE 1-A



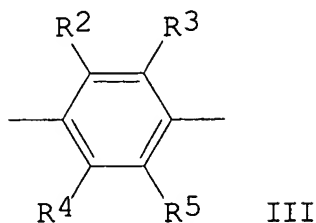
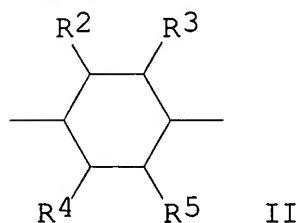
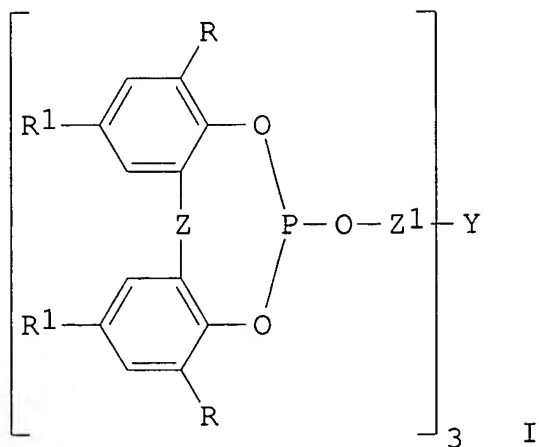
PAGE 2-A



L8 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:618631 CAPLUS
 DOCUMENT NUMBER: 107:218631
 TITLE: Cyclic bis and tris phosphites and stabilized
 synthetic resin compositions
 INVENTOR(S): Nakahara, Yutaka; Haruna, Tohru; Tobita,
 Etsuo
 PATENT ASSIGNEE(S): Adeka Argus Chemical Co., Ltd., Japan
 SOURCE: U.S., 34 pp. Cont. of U.S. Ser. No. 557,819,
 abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 4670492	A	19870602	US 1985-790282
19851022			
PRIORITY APPLN. INFO.: 19831201			US 1983-557819 A1

GI

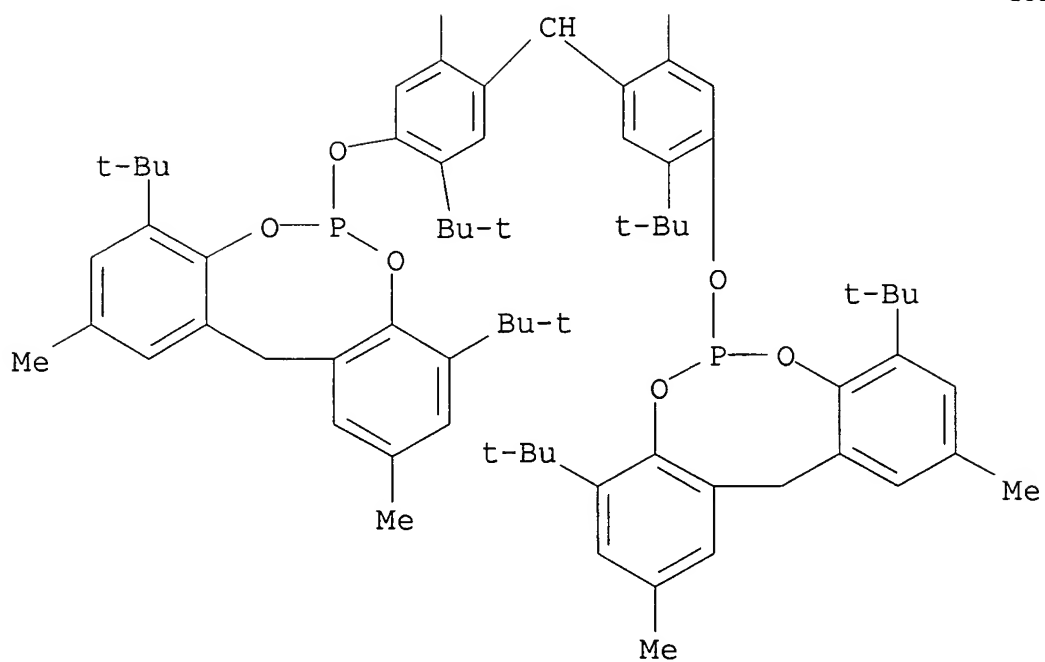
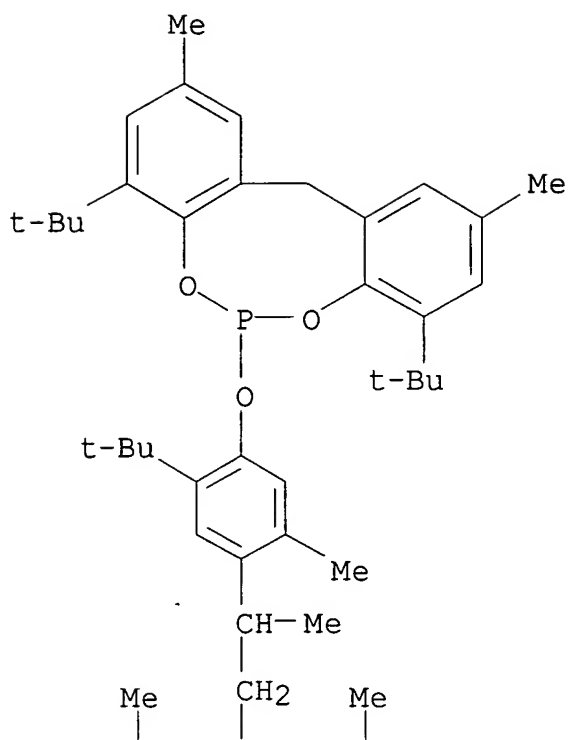


AB Polymers are stabilized with cyclic phosphites I (Z = S, O, alkylidene; R = alkyl, arylalkyl; R1 = H, alkyl, arylalkyl; Z1 = II, III; R2-5 = H, alkyl; Y = C3-6 alkylidene). Thus, a mixture of polypropylene containing dilauryl thiodipropionate 0.2, Ca stearate 0.2, pentaerythritol tetrakis(3,5-di-tert-butyl-4-hydroxyphenyl)propionate 0.1, and I (R,R4 = tert-Bu; R1 = Me; Z = CH2; Z1 = III; R2,R5 = H; R3 = Me; Y = CHCH2CHCH3] had thermal stability (at 160° in air) 820 h, and yellowness index 8.4 initially and 10.4 after 72 h UV irradiation; vs. 320 h, 10.6, and 15.0, resp., without the I.

IT **87742-03-8 111452-13-2**
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (heat and light stabilizers, for plastics)

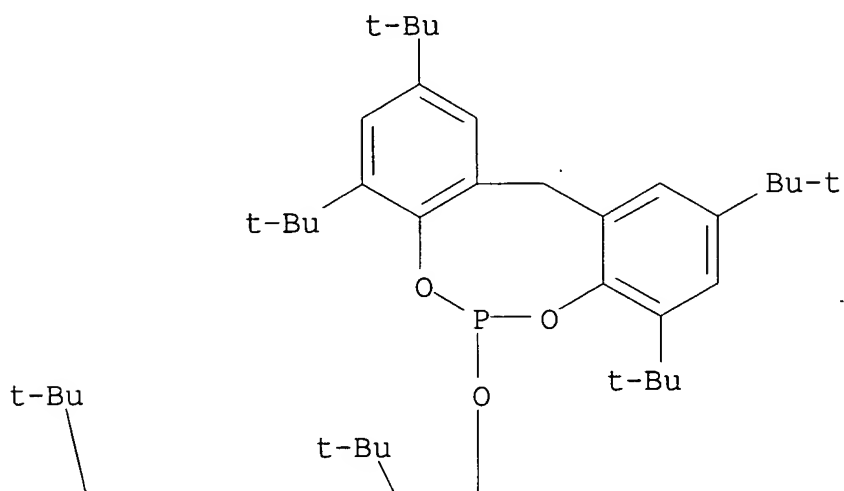
RN 87742-03-8 CAPLUS

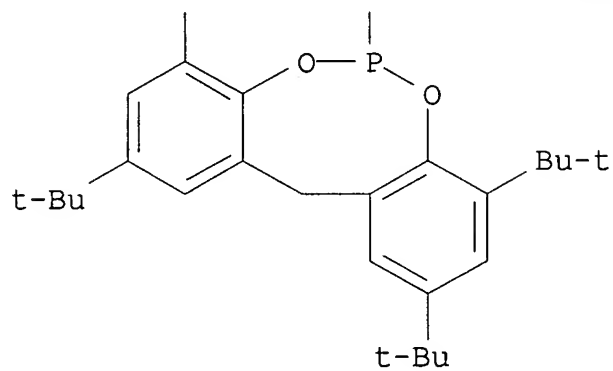
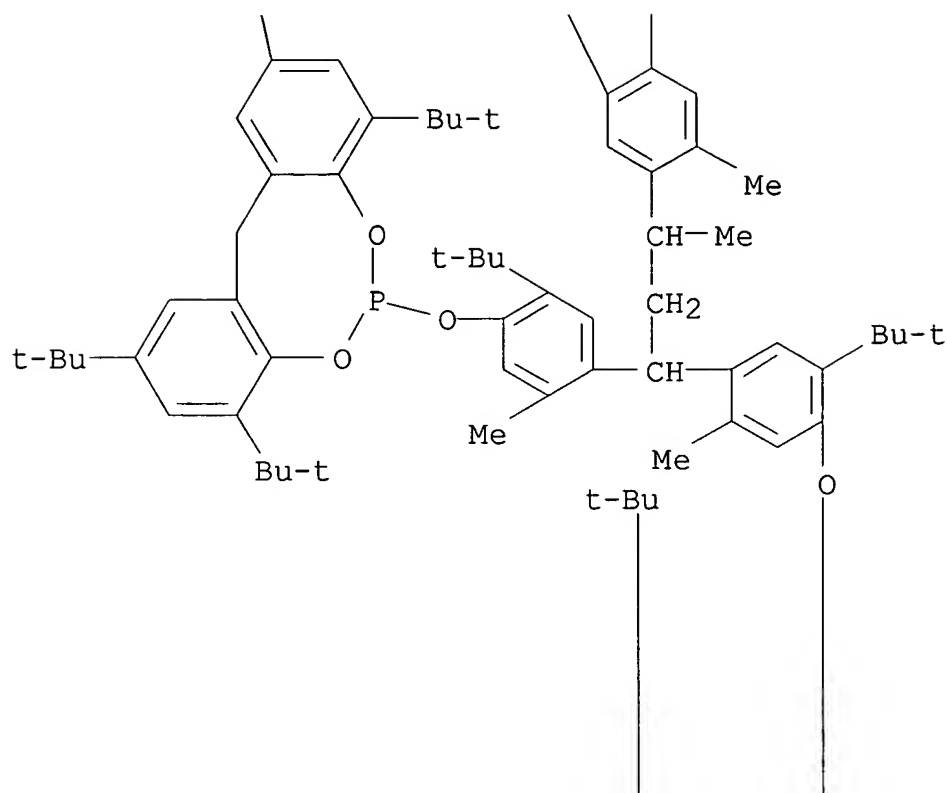
CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin, 6,6',6''-[(1-methyl-1-propanyl-3-ylidene)tris[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]]tris[4,8-bis(1,1-dimethylethyl)-2,10-dimethyl- (9CI) (CA INDEX NAME)



RN 111452-13-2 CAPLUS
 CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
 6,6',6''-[(1-methyl-1-propanyl-3-
 ylidene) tris[[2-(1,1-dimethylethyl)-5-methyl-4,1-
 phenylene]oxy]] tris[2,4,8,10-tetrakis(1,1-dimethylethyl)- (9CI)
 (CA INDEX
 NAME)

PAGE 1-A



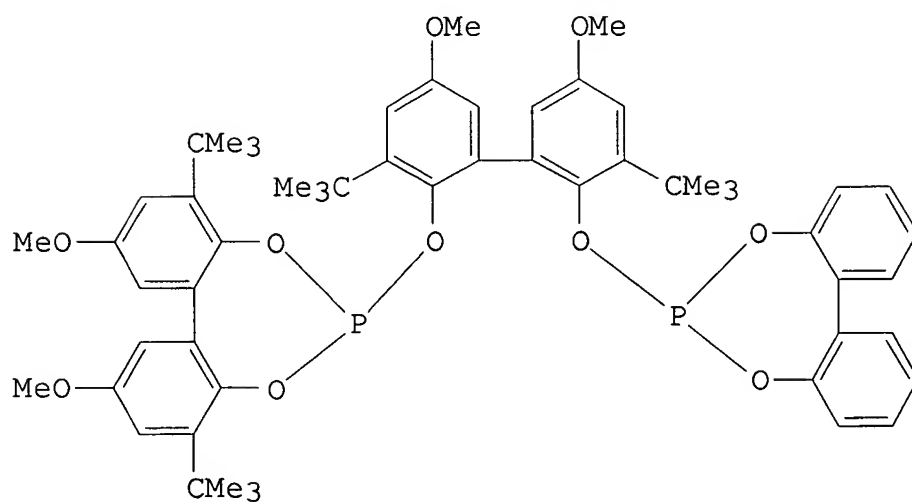
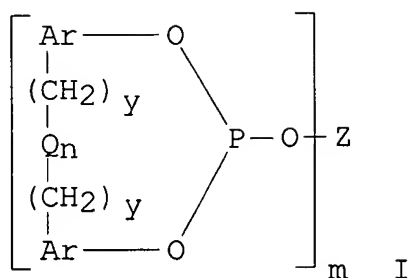


L8 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:425126 CAPLUS
 DOCUMENT NUMBER: 107:25126
 TITLE: Transition metal complex-catalyzed processes
 INVENTOR(S): Billig, Ernst; Abatjoglou, Anthony George;
 Bryant,
 David Robert

PATENT ASSIGNEE(S): Union Carbide Corp., USA
 SOURCE: Eur. Pat. Appl., 83 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
-----	----	-----	-----
EP 214622 19860904	A2	19870318	EP 1986-112257
EP 214622	A3	19880518	
EP 214622	B1	19920513	
R: AT, BE, DE, FR, GB, IT, NL, SE			
US 4668651 19850905	A	19870526	US 1985-772859
CA 1281704 19860826	A1	19910319	CA 1986-516846
DK 8604234 19860904	A	19870306	DK 1986-4234
FI 8603570 19860904	A	19870306	FI 1986-3570
FI 88916	B	19930415	
FI 88916	C	19930726	
NO 8603546 19860904	A	19870306	NO 1986-3546
NO 167652	B	19910819	
NO 167652	C	19911127	
CN 86106811 19860904	A	19870429	CN 1986-106811
CN 1007348	B	19900328	
ZA 8606728 19860904	A	19870429	ZA 1986-6728
BR 8604261 19860904	A	19870505	BR 1986-4261
JP 62116535 19860904	A2	19870528	JP 1986-206937
JP 04051531	B4	19920819	
ES 2001416 19860904	A6	19880516	ES 1986-1617
HU 46642 19860904	A2	19881128	HU 1986-3820
HU 204489	B	19920128	
IN 168034 19860904	A	19910126	IN 1986-MA713
PL 152601 19860904	B1	19910131	PL 1986-261286
CS 275462 19860904	B2	19920219	CS 1986-6430

CS 275474	B2	19920219	CS 1988-7490	
19860904				
AT 76054	E	19920515	AT 1986-112257	
19860904				
AU 8662373	A1	19870312	AU 1986-62373	
19860905				
AU 597593	B2	19900607		
RU 2005713	C1	19940115	RU 1987-4028803	
19870106				
CN 1041761	A	19900502	CN 1989-107465	
19890919				
CN 1021202	B	19930616		
PRIORITY APPLN. INFO.:			US 1985-772859	A
19850905				
			EP 1986-112257	A
19860904				
			SU 1987-4028803	A
19870106				
GI				



II

AB Catalysts for carbonylation processes, especially hydroformylation, comprise

complexes of Group VIII metal (especially Rh) carbonyl compds.
and phosphites I

(Ar = aromatic group; Z = aliphatic or aromatic group with
valence m; Q = CR₁R₂, O,

S, NR₃, SiR₄R₅, CO; R₁ and R₂ = H, alkyl, Ph, tolyl, anisyl; R₃,
R₄, and

R₅ = H or Me; n = 0 or 1; m = 2-6; y = 0 or 1). The
hydroformylation of

1-butene in the presence of a catalyst comprising rhodium
dicarbonyl

acetylacetonate and the phosphite II gave valeraldehyde and
2-methylbutyraldehyde.

IT 108793-42-6 108793-44-8

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for hydroformylation of olefins)

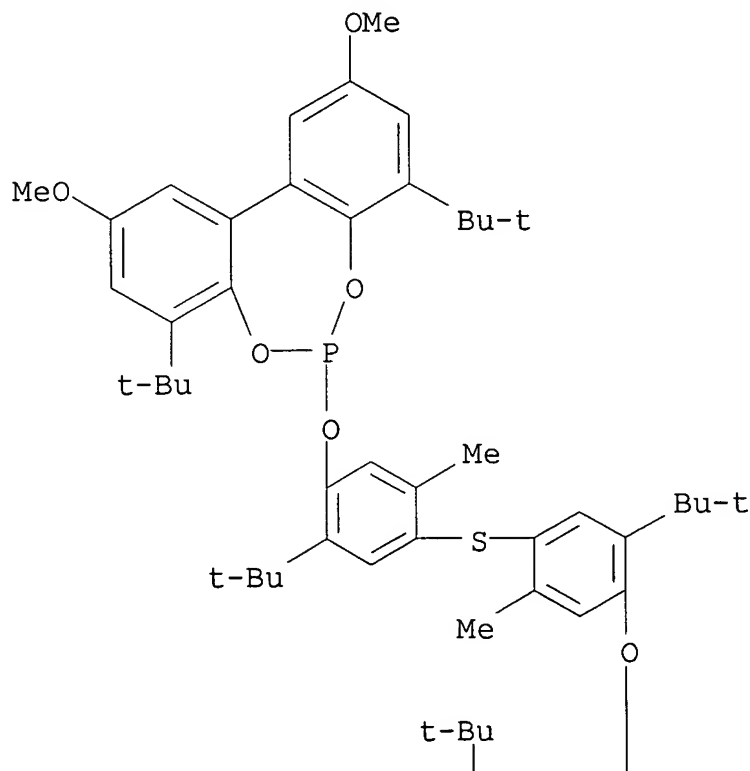
RN 108793-42-6 CAPLUS

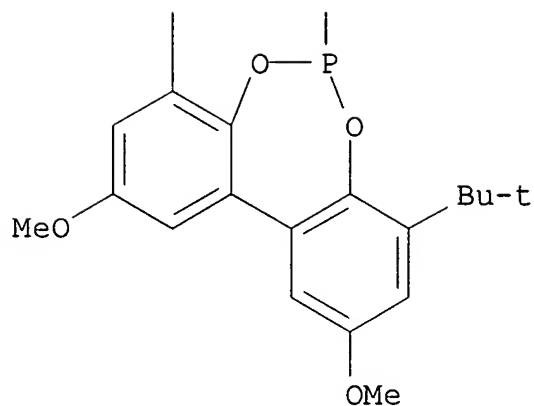
CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

methyl-4,1-phenylene]oxy]]bis[4,8-bis(1,1-dimethylethyl)-2,10-dimethox
y-

(9CI) (CA INDEX NAME)

PAGE 1-A



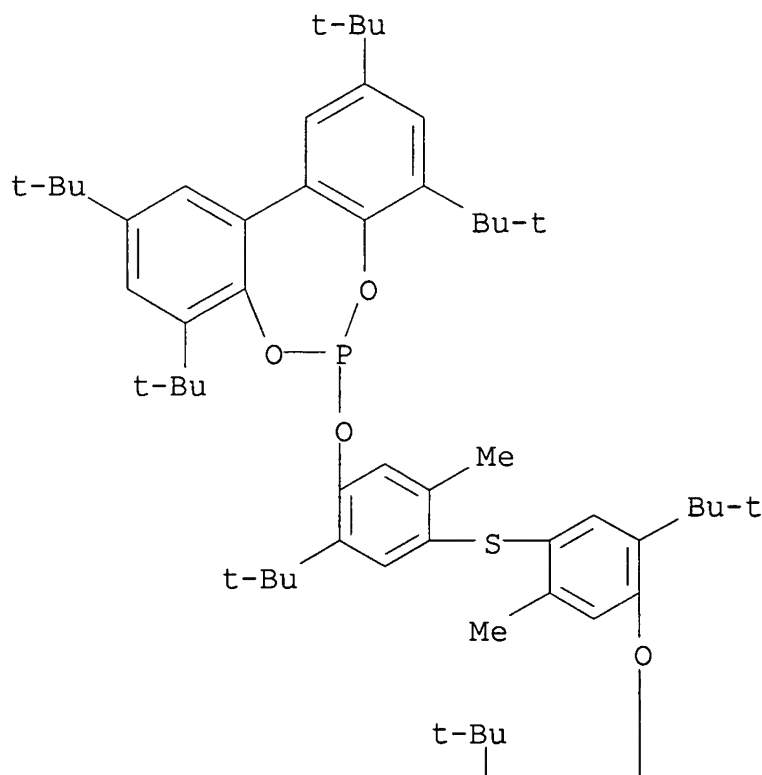


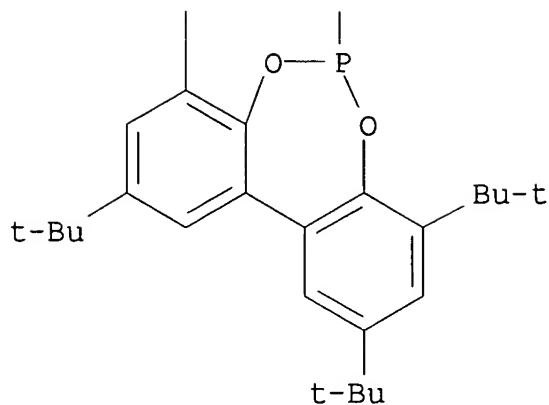
RN 108793-44-8 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphepin,
6,6'-[thiobis[[2-(1,1-dimethylethyl)-5-

methyl-4,1-phenylene]oxy]]bis[2,4,8,10-tetrakis(1,1-dimethylethyl)-
(9CI)

(CA INDEX NAME)



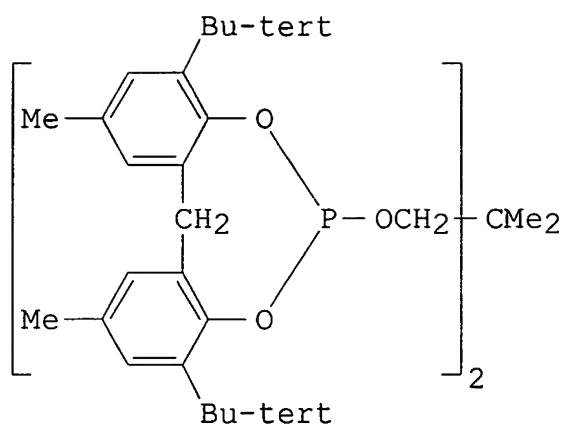


L8 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1984:52560 CAPLUS
 DOCUMENT NUMBER: 100:52560
 TITLE: Stabilizers for resins
 PATENT ASSIGNEE(S): Adeka Argus Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 58103537	A2	19830620	JP 1981-202275
JP 01024172	B4	19890510	JP 1981-202275

DATE -----

 19811215
 19811215
 PRIORITY APPLN. INFO.:
 19811215
 GI



AB Cyclic phosphites of alkylated bisphenols and polyols are heat stabilizers

and antiweathering agents for resins. Thus, polypropylene [9003-07-0]

was stabilized with the phosphite I [87730-41-4] 0.1, Ca stearate 0.2,

dilauryl 3,3'-thiodipropionate 0.2, and pentaerythritol tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] 0.1

phr.

IT **87730-38-9 87742-03-8**

RL: USES (Uses)

(stabilizer, for plastics)

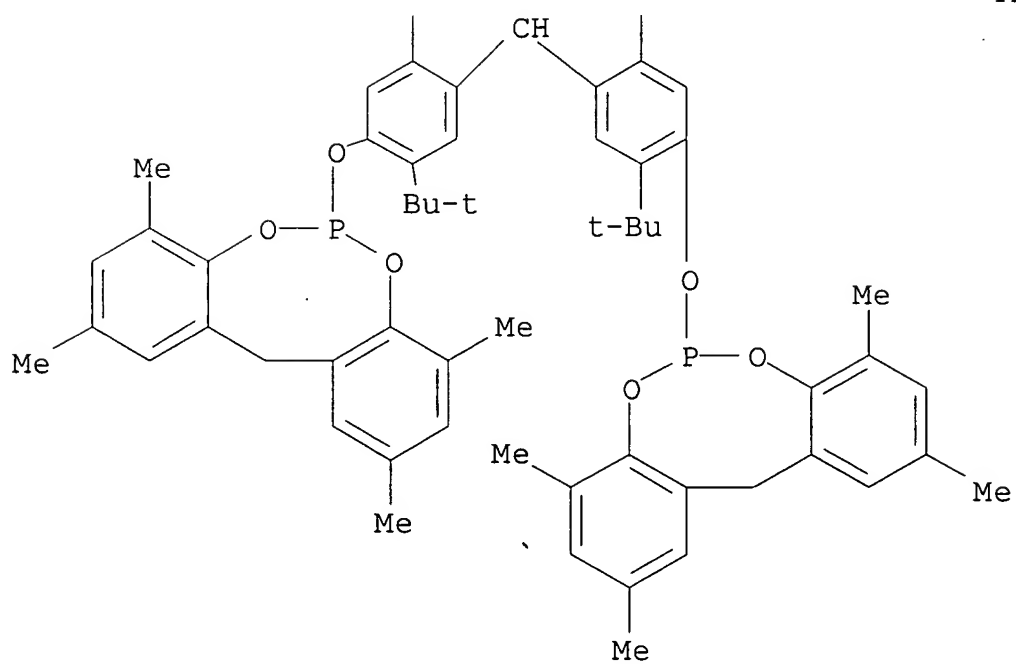
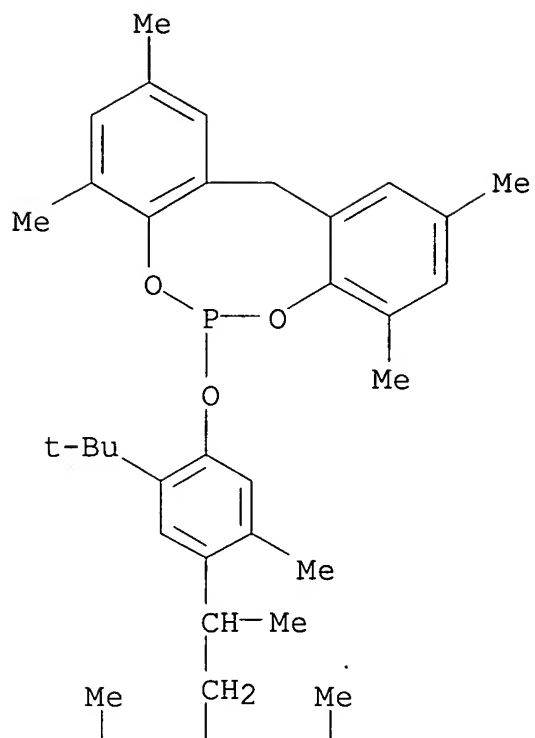
RN 87730-38-9 CAPLUS

CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,

6,6',6''-[(1-methyl-1-propanyl-3-

ylidene)tris[[2-(1,1-dimethylethyl)-5-methyl-4,1-

phenylene]oxy]]tris[2,4,8,10-tetramethyl- (9CI) (CA INDEX NAME)



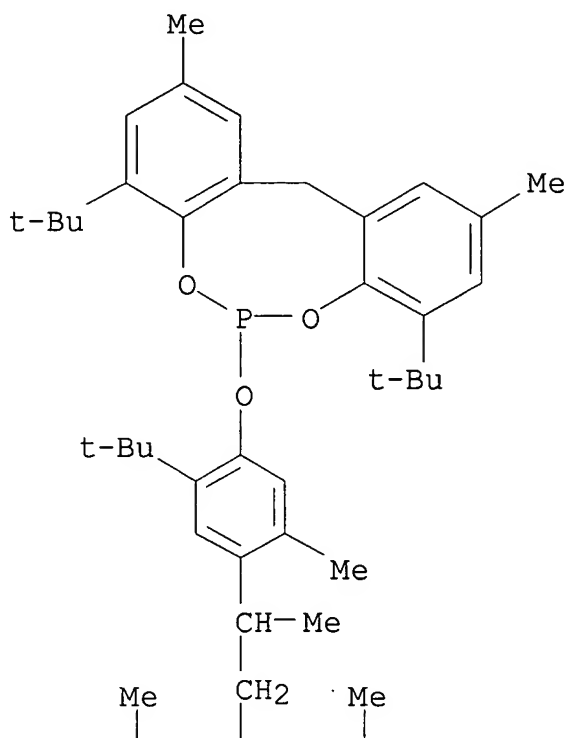
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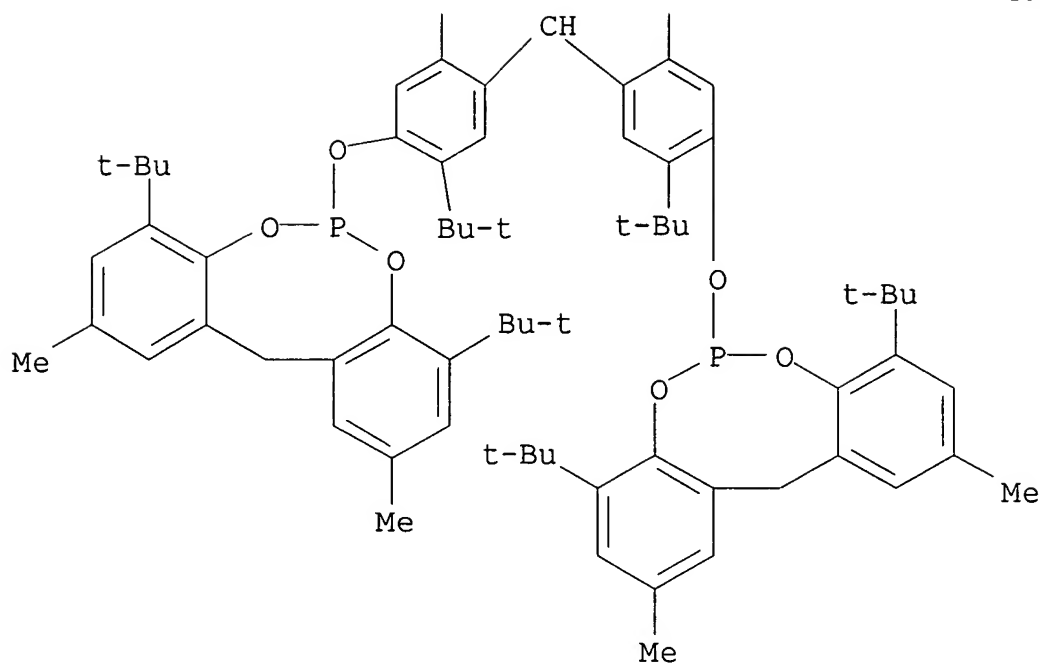
CN 12H-Dibenzo[d,g][1,3,2]dioxaphosphocin,
6,6',6''-[(1-methyl-1-propanyl-3-

ylidene) tris[[2-(1,1-dimethylethyl)-5-methyl-4,1-phenylene]oxy]] tris[4
,8-

bis(1,1-dimethylethyl)-2,10-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A





L8 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1982:599111 CAPLUS
 DOCUMENT NUMBER: 97:199111
 TITLE: Alkylated 2,2'-biphenylene phosphites and
 stabilized compositions
 INVENTOR(S): Spivack, John D.
 PATENT ASSIGNEE(S): Ciba-Geigy Corp. , USA
 SOURCE: U.S., 11 pp. Cont.-in-part of U.S. 4,288,391.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 4351759	A	19820928	US 1981-246341
19810323			
US 4196117	A	19800401	US 1978-866748
19780103			
US 4288391	A	19810908	US 1979-93786
19791113			
PRIORITY APPLN. INFO.:			
19780103			US 1978-866748 A2
			US 1979-93786 A2
19791113			

AB Alkylated 1,1'-biphenyl-2,2'-diyl phosphites, useful as heat stabilizers

for organic compns., are prepared by treating alkylated 2,2'-biphenol with PCl₃

and treating the intermediate with an alc. or thiol. Thus, 21.7 g

3,3',5,5'-tetra-tert-butyl-1,1'-biphenyl-2,2'-diyl)phosphorochloridite [83697-21-6], prepared from PCl₃ and

4,4',6,6'-tetra-tert-butyl-2,2'-

biphenol [6390-69-8], was added to an aqueous dispersion of K 2,4-di-tert-butylphenolate in 60 mL toluene for over 25 min at -5°

to -3° to give

O-(2,4-di-tert-butylphenyl)-O1,02-(3,3',5,5'-tetra-tert-butyl-1,1'-biphenyl-2,2'-diyl) phosphite (I) [83697-22-7], m.p.

195-7°. polypropylene [9003-07-0] Containing 0.1% com. antioxidant

and 0.05% I had yellowness index (YI) 9.9 after 5 extrusions at 500°F while the specimen containing only the com. antioxidant had YI

12.5.

IT 83697-27-2

RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, for polypropylene)

RN 83697-27-2 CAPLUS

CN Dibenzo[d,f][1,3,2]dioxaphosphin,
6,6'-[methylenebis[[2,6-bis(1,1-

dimethylethyl)-4,1-phenylene]oxy]]bis[1,3,9,11-tetrakis(1,1-dimethylethyl)-

(9CI) (CA INDEX NAME)

